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# THE ROYAL COMMISSION ON THE NORTHERN ENVIRONMENT

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SUBMISSION TO

# THE ROYAL COMMISSION ON THE NORTHERN ENVIRONMENT

## PUBLIC INFORMATION HEARINGS

THE MINISTRY OF THE ENVIRONMENT

NOVEMBER 1977

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## INTRODUCTION

This submission to The Royal Commission on the Northern Environment has been prepared in a hope of helping the Commission and the public to understand the role of the Ministry of the Environment as it relates to the area north of the 50° parallel of Ontario and the Commission's terms of reference.

It is important to understand that in matters relating to The Environmental Protection Act, 1971 the definition of environment is limited to air, land and water, however, The Environmental Assessment Act, 1975 expanded the definition to include social and economic components. (See Appendix 4)

In the first section on the Role of the Ministry we have attempted to provide a comprehensive overview of the Ministry's structure and function and outline how it interacts with industries, municipalities, other provincial agencies and the public. Included are the various approvals functions of the Ministry and the standards applicable to Ontario.

This is followed by a section on the enabling legislation under which the Ministry operates. An effort has been made to provide a comprehensive discussion of The Environmental Assessment Act, 1975 since it is specifically mentioned in the terms of reference of the Commission and we also feel that it provides a new planning tool which may prove very useful in the evaluation of major northern development proposals.

The third section addresses MOE's concerns north of the 50th parallel. It points out that the Ministry's mandate applies to the province as a whole and for the most part there is little need to differentiate between north and south. However certain considerations are addressed which are unique or particularly pertinent to the north such as climate, environmental sensitivity, travel distances, project magnitude, native concerns, and economic instability.

Following this is a discussion of the Canada-Ontario Accord under which the Ministry has agreed to work with the Federal Government in a co-ordinated effort to protect and enhance environmental quality. We have attempted to present the significance of the agreement to the Ministry, the Province and particularly the area under the Commission's mandate. Finally this section presents an overview of the Federal Environmental Assessment Review Process with specific reference to the Polar Gas proposal.

At this point our submission changes its emphasis from the specifics of the Ministry's activities to some philosophical questions related to the Ministry's programs.

The fifth section addresses the need for environmental safeguards in the vast, relatively unspoiled area in the north. Presented are some examples of problems in the past along with some discussions of environmental sensitivities peculiar to the north. The latter part of this section includes a discussion

of the need to consider non-resource or intangible components of the environment when making planning decisions. There is reference made to endangered species which, although mandated to the Ministry of Natural Resources by The Endangered Species Act, are still of concern to the MOE by nature of them being components of the environment. As well this section shows that there are economic, and social rationales for protecting non-resource species and preserving intangible values.

The sixth section is an examination of the economic implications of environmental standards in Ontario. The basic thesis presented is that the theory of environmental standards driving away investment is not well founded. As a counter-argument some economic implications of pollution are presented. As well it is pointed out that environmental safeguards can have positive effects on the economy. There has also been an effort to show that competing jurisdictions have similar environmental standards and that decisions not to invest in Ontario are likely based on factors other then this Province's environmental requirements.

The next chapter presents some recommendations as to how the Commission could operate. We have based these recommendations on experiences, problems and successes of other public hearings.

Finally within the main text of our submission we have highlighted some of the issues that the Commission may wish to

address. We have not attempted to confine these suggestions to the Ministry's mandate as the Commission must necessarily focus on those issues most critical to the interests to the people of Ontario - issues that do not conform to bureaucratic boundaries.

The remainder of our submission consists of appendices, the functions of which are to supplement the main text and provide a basic reference package for the Commission and the public.

It is this Ministry's intention to play an active role in the proceedings of teh Commission and to assist the Commission wherever possible to achieve its goals. It is in this spirit that we respectfully present this, the Ministry of the Environment's initial submission.

# CHAPTER 1

## ROLE OF THE MINISTRY OF THE ENVIRONMENT

## THE ROLE OF THE MINISTRY:

### A. Introduction

The Ontario Ministry of the Environment's role in this province is the overall protection of the environment to prevent degradation by man's activities.

To achieve this goal, four objectives have been set: control over contaminant emission; establishment of environmental safeguards in planning; improved management of waste and water; and maintenance of restorative and enhancement measures.

The activities of the Ministry of the Environment are largely governed by legislation which specifies what this Ministry may do in order to obtain satisfactory environmental quality. The Ministry of the Environment administers the following statutes:

The Environmental Protection Act, 1971 (Appendix 1)

The Ontario Water Resources Act (Appendix 2)

The Pesticides Act, 1973 (Appendix 3)

The Environmental Assessment Act, 1975 (Appendix 4)

The air contaminant standards and ambient air quality criteria are established by Regulations passed under The Environmental Protection Act, 1971 (See Chapter 2B).

Provisions for the management of water quality are contained in a policy document entitled, "Guidelines and Criteria for Water Quality Management in Ontario". (Appendix 5)

The Ministry, through the Federal-Provincial Accord, also administers regulations and guidelines developed under Federal environmental legislation (See Chapter 4).

In accordance with a comprehensive environmental management approach, the Ministry's familiar role in enforcing standards and objectives to protect the environment, and in building sewer and water systems, has been set within a broader environmental and planning context. The Ministry's traditional role of environmental management and protection has had increasing emphasis placed on the preventative aspects in recent years, and this preventative function has been enhanced by the passing of The Environmental Assessment Act, 1975.

B. Programs

The Ministry accomplishes its objectives through central functions, located in Toronto and through a Regional Operations Division. The central function is responsible for policy and procedure development, technical specialization and consultation, assessment and approval functions and a comprehensive laboratory service. The Ministry's Regional Operations Division, consisting of six regional offices and 23 district offices, is responsible in the field for program delivery across the province. Appendix 8 contains a map of the regional boundaries.

The Ministry has established four broad Programs, of which three are relevant to the Royal Commission on Northern Environment.

1. Environmental Assessment and Planning Program

This program assesses the current and potential effects of various pollutants (including noise), develops environmental standards or criteria and ensures that environmental safeguards are incorporated into land use policies. Applied research in the areas of water and waste water treatment is undertaken. The administration of The Environmental Assessment Act, 1975, is included in this program.

To ensure that the environmental aspects of various land use planning matters are considered before decisions are made, the Ministry reviews and comments on those matters referred to it, under Sections 14(1) and 33(4) of The Planning Act, by the Ministry of Housing or the Regional Municipalities to which subdivision approval powers have been delegated.

2. Environmental Control Program

This program determines whether all contaminants, emitted into the environment are within Ministry standards or criteria by:

1) on-site surveillance and inspection;
2) the implementation of new abatement programs;
3) the issuing of control orders and the undertaking of

prosecutions; and,

4) the investigation of complaints.

This program also provides for the development and management of sewage and water treatment plants, as well as the development of methods to be used for sewage and water treatment and of analytical methods for measuring existing and newly emerging pollutants.

Improvement of municipal solid waste management systems and the control of contamination from landfill sites come under this program.

Certain responsibilities under this program are delegated to Provincial Health Units.

3. Resource Recovery Program

This program involves the development of a Provincial policy for the recovery and utilization of the components of solid waste. It also aims at the development of specialized techniques for the restoration and enhancement of environmental quality by recycling materials.

Within these three programs are a number of activities or sub-programs which can be divided into five broad categories:

1: Prevention of Environmental Damage (Approvals and Licensing Permits).

2: Support (Criteria, Guidelines, Standards, Research, advice).

3: Utility (Sewage, Water)

4: Waste Management.

5: Control (Surveillance, Control Orders, Abatement Monitoring).

## C. Functions

### 1. The Approvals Function

In order to ensure that proposed planning programs, projects, policies and legislation in Ontario incorporate the necessary safeguards, there are a series of approvals required under the four Acts administered by the Ministry of the Environment.

Table I outlines the type of activity for which an approval or licence is required and the area of the Ministry that is responsible for issuing it. Some areas (e.g. sewage works) are shown to require approvals from several sections. In actual fact only one approval is required and the section responsible for it depends upon the nature of the proposal.

### 2. The Support Function

The approvals activities of the Ministry and, particular, those of the Environmental Approvals Branch, require technical support, which is supplied by other Branches such as the Air Resources, Water Resources, and Pollution Control Branches, as well as by the Regional Offices.

Table 1

APPROVALS MATRIX

| BRANCH/SECTION | Licence for Water Well Drillers and Borers | Permits to take Water | Approval for the construction (& alteration) of Private Sewage Disposal Systems | Permit for Aquatic Nuisance Control | Licences for Pesticides Control | Permits for Pesticides Control | Approval covering industrial applications for land disposal sites & Waste Management Systems | Approval covering construction and operation of any Stationary facility or thing which may emit contaminants into the air. | Approval covering facilities for the collection, transportation, treatment & disposal of industrial wastes. | Licences for installers of septic tanks, tile fields & haulers of sewage | Approval for Waste Disposal Sites & Waste Management Systems | Approval for Sewage Works | Approval for Water Works | Acceptance of the environmental assessment. | Approval to proceed with an undertaking. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Environmental Approvals Branch | | | | | | | | | | | | | | | |
| *Environmental Assessment Section* | | | | | | | | | | | | | | X | X |
| *Industrial Approvals Section* | | | | | | | X | X | X | | | X | X | | |
| *Municipal & Private Approvals Section* | | | | | | | | X | | X | X | X | X | | |
| Project Co-ordination Branch | | | | | | | | | | | | | | | |
| *Design & Equipment Selection Section* | | | | | | | | X | | | | X | X | | |
| Pollution Control Branch | | | | | | | | | | | | | | | |
| *Pesticides Control Section* | | | | X | X | X | | | | | | | | | |
| ** Regional Operations | | X | X | | | | | | | | | | | | |
| Water Resources Branch | | | | | | | | | | | | | | | |
| *Hydrology & Monitoring Section* | X | | | | | | | | | | | | | | |

*Actual approvals are issued either by the Minister of the Environment or by the Environmental Assessment Board.*

**Approval for the construction of private sewage disposal systems are issued either by the MOE Regional Office or the Local Health Unit (depends on the local agreements).*

These Branches assess the effects of pollutants (including noise) and develop standards, criteria and guidelines for air and water quality which, along with practical expertise and research, provide support for the approvals activity.

3. Utility Function

This activity provides assistance where needed to Municipalities to meet the requirements of The Environmental Protection Act and The Ontario Water Resources Act for construction of water and sewage works. The activity supports urban development in the Province and facilitates economies of scale.

Projects carried out by the Ministry are of two types - Municipal and Provincial. In the former the Ministry provides financing for a maximum term of 30 years with ownership reverting to the Municipality upon repayment. Under the Provincial type program, the Province retains ownership of the works as provincial assets and costs are recovered on the basis of water or sewage service rates.

The Project Co-ordination Branch co-ordinates the planning and constructing of these facilities in consultation with the other branches and regions of the Ministry. All projects of this type unless specifically exempted by order-in-council are subject to the provisions of The Environmental Assessment Act.

The order of priority for the intiating or undertaking of sewage treatment and/or water supply projects by the Ministry are: the removal of health hazards, environmental protection, community enhancement. However, in order to allow for the continuity of projects and recognition of Provincial government objectives, there is flexibility in the applicaton of this policy.

4. Waste Management Function

This activity is concerned with the development and implementation of a comprehensive waste management program for the conservation and recovery of resources.

The Resource Recovery Branch carries out research into waste processing technology and markets for recovered resources. It also provides technical assistance on matters relating to waste processing, resource recovery and usage, marketing and market development.

5. Control Function

The Regional Offices of the Ministry plan, direct and co-ordinate the delivery of the Ministry's programs in the field. This involves working with private, municipal and industrial agencies, and with the public to achieve the Ministry's objectives for environmental control.

The portion of Ontario north of the 50th degree parallel lies within two of the Ministry's regions. These are the

Northeastern and the Northwestern Regions with the majority of the area and activity being in the later.

The Northwestern Regional office is in Thunder Bay with District Offices in Thunder Bay and Kenora.

The Northeastern Regional office is in Sudbury with District Offices in Sudbury, Timmins, Sault Ste. Marie, North Bay and Parry Sound.

The environmental functions in the Regional Offices are carried out by four sections: Municipal and Private Abatement, Industrial Abatement, Technical Support and Laboratory Services, and Utility Operations.

a) Municipal and Private Abatement:

The Municipal and Private Abatement Section concerns itself with the development of water and sewage schemes and solid waste disposal sites in the region. It advises on the operation of municipal or other communal water and sewage plants and arranges to monitor the quality of the waste discharges to watercourses and the quality of drinking water being distributed to the public. This section also reviews plans which are prepared by municipalities or private developers to expand the above-mentioned facilities or create new ones. It also provides comments on the expansion of municipal developments or establishment of new townsites so that environmental problems are avoided. The Ministry's involvement in the planning and creation of the new communities, completely serviced with water and sewage facilties, is an example of this activity.

The Section also conducts pollution surveys, investigates complaints, and requires that remedial programs are undertaken where necessary. These programs are supported where necessary by the issue of Control Orders, and in some cases by prosecutions under the terms of the legislation. This Section also controls the use of pesticides through licensing, issuing of permits, and regular inspection of vendor premises and spray operations. Solid waste disposal sites, their development and operation, also come under the scrutiny of this Section.

b) Industrial Abatement:

The Industrial Abatement Section's activities are similar throughout the Province. These activities include identifying sources of industrial pollution and determining the characteristics and concentrations of known and potential environmental contaminants including emissions to the air, waters and land. A major activity for new and existing industrial sources is establishing suitable pollution control facilities to ensure that harmful effects do not occur, or in the latter case, are reduced to acceptable levels. In addition, the activities include investigating complaints of industrial pollution and spillage of hazardous chemicals and other industrial wastes and insuring that corrective measures are taken by those responsible. Legal activities such as the issuing of orders and prosecutions are also undertaken by this Section when required.

c) Technical Support and Laboratory Services:

The Technical Support Section maintains monitoring programs on selected watercourses which receive either municipal or

industrial wastes, or in areas where baseline data is required in advance of proposed development. Programs are also carried out to monitor and establish groundwater capabilities in some areas.

The Section also maintains a monitoring network for air pollutants. Instrumentation to measure contaminants such as dustfall, suspended particulate, sulphur dioxide and hydrogen sulphide are located throughout the north. In addition, phytotoxicology studies and snow sampling programmes are undertaken to identify the effects of air pollutants in support of the monitoring programme.

The Technical Support Section coordinates comments prepared for other Ministries on development proposed in the area when it may affect the quality of the environment. This role includes the review of all plans for the installation and operation of communal water and sewage systems, waste disposal sites, subdivisions, and any developments which may or will emit or discharge contaminants to the environment (gaseous, liquid or solid). A regional laboratory, located in Thunder Bay and administered in the Technical Support program, provides analytic facilities to serve regional staff, municipalities and Ministry programs involving the public in Northern Ontario.

d) Utility Operations:

The Regional Offices also have a Utility Operations Section which provides water and sewage services to residents of the area. This section administers the operation of water and sewage plants through a regional staff of engineers, maintenance personnel and plant operating personnel.

# CHAPTER 2

## LEGISLATION

A. The Environmental Assessment Act

The Environmental Assessment Act was approved by the Legislature and received Royal Assent in July, 1975. The intention of the Act, as outlined in the Green Paper on Environmental Assessment is:

- to identify and evaluate all potentially significant environmental effects of proposed undertakings at a stage when alternative solutions, including remedial measures and the alternative of not proceeding, are available to decision- makers.
- to ensure that the proponent of an undertaking and governments and agencies required to approve the undertaking give due consideration to the means of avoiding or mitigating any adverse environmental effects prior to granting any approval to proceed with an undertaking.

The Act is being implemented on a phased basis, starting first with undertakings of the Ontario Government's ministries and agencies, then extending to municipalities and Conservation Authorities, and in the third phase covering major activities in the private sector.

The Act was proclaimed in force for the public sector in October, 1976. Conservation Authorities and municipalities were temporarily exempted at that time. However, a regulation bringing Conservation Authorities under the Act was approved in September, 1977 and indications are that municipalities will be regulated in 1978. While it is the intention of the Government to extend the Act generally to major undertakings in the private sector only after experience has been gained with public activities, the Premier has indicated that individual private undertakings of particular significance may be regulated where it is in the public interest to do so. Accordingly, the sections

allowing the Act to be applied to the private sector where proclaimed in force in January, 1977. To date, the Reed Paper proposal in northwestern Ontario and Inco's proposed hydro-electric generating station on the Spanish River are the only private undertakings designated under these provisions.

The mechanisms for applying the Act are determined by Sections 3, 30, and 41. The essence of these provisions may be summarized in two statements:

- for the public sector all undertakings are subject to the Act unless exempted by order or by regulation;
- for the private sector, undertakings are subject to the Act only when they have been defined and designated by regulations.

A proponent of an undertaking subject to the Act is prohibited from proceeding with the undertaking or obtaining any approvals or financing required for the undertaking until the proponent has prepared and submitted an environmental assessment to the Minister of the Environment and the environmental assessment has been accepted and an approval given to proceed with the undertaking under the provisions of the Act.

An environmental assessment is essentially a documentation of the decision process followed by the proponent in arriving at the proposed undertaking. The environmental assessment must contain a full evaluation of the environmental, social, cultural, technical and economic effects of the proposed undertaking and its alternatives. The document does not focus only on natural environment questions, as it is intended to provide a basis for an overall Government decision on whether the under-

taking should be allowed to proceed.

Once the environmental assessment is submitted, the Ministry of the Environment coordinates a Government review of the document. This review involves all Ministries and agencies with a mandate or interest pertaining to the undertaking.

The environmental assessment and the Government review are made public and the Act provides for public submissions on these documents to the Minister of the Environment. The public may also give the Minister notice requiring a hearing to be held.

If a hearing is required, the acceptance of the environmental assessment and approval of the undertaking are decisions made by the Environmental Assessment Board established under the Act. The Provincial Cabinet may vary the decision of the Board, substitute its own decision, or require a new hearing to be held.

If no hearing is required, the Minister of the Environment decides upon the acceptability of the environmental assessment and the Cabinet determines whether the undertaking should be allowed to proceed.

All important notices and documents under the Act are given to interested members of the public and are included in a record maintained by the Ministry which is open for public inspection.

The Environmental Assessment Act is an important new planning and decision-making tool. It is particularly relevant to

the terms of reference of the Commission as it provides a method which may be used in the future to assess, evaluate and make decisions concerning the effects on the enviornment (as defined in the Commission's terms of reference) of proposed major public and private undertakings in the north. For this reason, a more comprehensive discussion of The Environmental Assessment Act is provided in Appendix No. 4.

B. The Environmental Protection Act, 1971

The Environmental Protection Act is the legislation which enables the Ministry to regulate the emission of contaminants to the environment.

Section 8 requires a certificate of approval to be obtained from the Director before any person may construct any plant, equipment etc. which "may emit or discharge a contaminant into the environment excluding water". (Emissions to water require approval under The Ontario Water Resources Act). This however does not preclude the issuance of a control or stop order at some later date if the Director feels that further controls are necessary.

Section 30 of Part V of the Act requires a certificate of approval for any waste management systems and waste disposal sites.

Public hearings are required for the establishment or expansion of a waste disposal site being used for the disposal of specified waste (Section 33a) except in emergency situations (section 33b).

A certificate of approval under Section 57 is required for the construction, installation, establishment, extension or alteration of a private sewage system. This approval is issued by the Director or by the local Health Unit where such responsibility has been delegated.

Section 59a requires that before a sewage system is used or operated a permit for its use and operation must be issued by the Director, and Section 61 requires anyone engaged in the business of constructing or maintaining sewage systems or handling sewage from the systems to be licensed.

There are several regulations which have been passed pursuant to Section 94 of The Environmental Protection Act. A partial list includes:

1. O. Reg. 11/70 - establishes air emission standards for Ferrous Foundries.
2. O. Reg. 229/74 - establishes standards for the construction, maintenance and operation of a sewage system as well as the licensing procedures required under Section 61 of the Act.
3. O. Reg. 824/70 - establishes the standards for waste disposal sites and waste management systems.
4. O. Reg. 926/76 - establishes requirements for the storage and handling of liquid industrial wastes.
5. O. Reg. 15/70 - as amended by O. Reg. 873/74 and 271/77, and O.Reg. 872/74 as amended by O.Reg. 158/75. These regulations establish air contaminant standards and ambient air quality criteria respectively for the Province of Ontario.
6. O. Reg. 183/72 - establishes standards for asphalt plants.

This list does not include all the regulations pertaining to the north but does include those of most relevance to the Commission.

C. The Ontario Water Resources Act

This Act also has provisions for approvals and permits. It regulates the pollution of Ontario surface and ground water, and the taking of water.

Section 31 of the Act gives the Minister power to supervise surface and ground waters, and to examine these waters where there is a possibility of pollution.

Section 37 states that no person shall take more than 10,000 gallons of water per day without a permit from the Director.

Section 40 requires the person carrying on a business of boring or drilling wells, to obtain a license from the Director.

Sections 41 and 42 of the Act require that anyone contemplating a water works or a sewage works submit the plans and specifications to the Director and obtain a certificate of approval before proceeding. Where a sewage works crosses municipal boundaries or is in an unorganized municipality a public hearing is mandatory under section 43.

D. The Pesticides Act, 1973

The purpose of The Pesticides Act, 1973 is to control the use of chemicals for the destruction of plant and animal pests, and the possible harmful effects of such pesticides. A number of pesticides have been found to have had damaging effects upon the environment. The manufacture of such chemicals is under federal jurisdiction; the province may only control the use of such pesticides.

Section 3 of the Act prohibits the emissions etc. of harmful pesticides to the environment.

As a further safeguard, operators may only perform an extermination upon obtaining the proper license after training (Section 4). Section 10 of the Act contains further provisions with respect to licensing.

Under sections 20 and 21 the Director may issue stop orders and control orders to control or prevent the emission of a pesticide into the environment. Section 23 empowers the Minister to order the person responsible for pesticide which is damaging the environment, to clean it up.

Regulation 618/74 under The Pesticides Act, 1973 controls the sale, use and handling of pesticides in Ontario. A pesticide cannot be sold in Ontario unless it is listed in a schedule of this Regulation.

# CHAPTER 3

## MINISTRY OF THE ENVIRONMENT'S CONCERNS NORTH OF 50°

## THE MINISTRY'S CONCERNS NORTH OF THE 50TH PARALLEL

In general, the Ministry of the Environment's concerns are similar both north and south of the 50th Parallel and basically involve carrying out the programs outlined in the section on The Role of the Ministry. However, certain features of the northern portion of the province result in special emphasis being given to some of these concerns. For example, the relatively severe weather conditions with a very short growing season result in slow natural recovery from environmental damage. This same factor also increases the time and cost of construction of pollution abatement facilities when these are required. Another factor is the buffering capacity of the lakes in the north. These lakes are on the Pre-Cambrian Shield and, because of the geochemistry of the shield, have low buffering capacity and cannot counteract the effects of certain types of contaminants to the same degree that lakes in other areas can.

Industrial growth in the north is of special concern because it is primarily based on resource extraction, i.e. the mines and forest industries, which require large projects with potentially wide reaching environmental effects. Without adequate planning and precautions to protect the environment, such projects can have much greater proportional effects in regions such as the north where the livelihood and life style of many of the people, particularly the native people and people involved in the tourist industry, are dependent upon preservation of the indigenous flora and fauna. Associated with this concern is the difficulty in developing an overall development and land use plan for a region where so much of the

industrial development is dependent upon locating the natural resources to support it. This is particularly pertinent to the mining industry where the mine and mill complex location is dictated by the location of the orebody. The location of the industry also, in many cases, dictates the location of the accommodations and services required for those working in the industry.

Over the past years, the Ministry of the Environment has been developing controls to ensure that the environmental problems which have occurred in the past as a result of industrial and associated townsite expansion are, for new ventures, eliminated or contained to acceptable levels. At the same time, these controls have also been used to correct or improve many of these problems associated with existing industries and municipalities.

In implementing abatement programs in the north, Ministry staff pay particular attention to factors which are critical in the north. Such factors as extreme frost depth and perma-frost, extreme cold temperatures, ready availability of spare parts, etc., must be considered in the design of services, industrial processes and pollution control facilities, before Ministry approval can be given. Also, because of the great distances from suppliers, staff ensure that adequate provisions are made for maintaining sufficient chemicals for water and sewage treatment and other pollution control systems. This is particularly important because the fragility of the environment to which such systems discharge dictates that interruption of pollution control operations be avoided.

Many effects of growth and expansion, particularly social and economic factors, have yet to be dealt with adequately. However, there have been successes with the present environmental control process which would suggest that many of the severe effects, at least on a physical environment, can be eliminated or reduced to manageable proportions for new ventures.

For example, in the pulp and paper industry, it has been possible to reduce the loss of solid materials such as fibre, bark, grit, etc., to acceptable levels by the installation of primary treatment facilities at most of the mills in the province and work in progress should solve this problem at the others. Also, during recent kraft mill expansions in the north, abatement programs have been developed which are designed to ensure control of other contaminants in the effluents. Particular note should be made of the development of a process installed in a new kraft mill built by the Great Lakes Paper Company Limited which is intended to result in the elimination of the effluent contaminated with objectionable substances.

Similarly, in the mining industry, many of the problems which occurred in the past because of the discharge of mine and mill wastes directly to natural waters without containment or treatment, have been eliminated. All new mines are now required to provide for total containment of the tailings produced in their mills and also must provide treatment for any wastewater discharged if they do not meet Ministry requirements. Examples of new mine/mill complexes where such controls have been

required are the nickel mine/mill complex owned by The International Nickel Company of Canada Limited at Lake Shebandowan near Thunder Bay and the copper/zinc base metal mine complex owned by Mattabi Mines Limited near Ignace and finally, north of the 50th parallel, the base metal mine operated by Union Miniere Exploration and Mining Corporation Limited at Pickle Lake. In spite of these advances, the Ministry is always concerned that its standards and expectations are high enough to protect the environment of the north.

An area of special concern which relates primarily to the mining industry, involves the effects which remain after an industry closes. The concerns basically are to ensure that provisions are made for adequate water supply and sewage treatment if the townsite remains and the mine/mill complex is removed or the affected area, particularly in the case of a tailing disposal area, is rehabilitated to avoid later environmental damage. The past inability to deal comprehensively with some of these problems, particularly with respect to townsites, is of major concern to the Ministry.

When the environmental assessment process is applied to new undertakings, whether voluntarily or legislated under The Environmental Assessment Act, many of the impacts of the undertaking can be predicted and avoided or mitigated. The Ministry is responsible for preparing guidelines for these assessments as well as co-ordinating the government review of them. Guidelines issued to-date indicate that an environmental assessment must cover all stages of an undertaking, including plans for construction, operation and retirement.

The main concern here as discussed in the section on The Environmental Assessment Act is that the alternatives are evaluated with respect to their effects on the social, economic and natural environments at a stage in the planning process before the decision-makers have become committed to a single course of action. The basic assumption is that it is better to anticipate and avoid a problem, if possible, rather than have to resolve it later.

CHAPTER 4

# CANADA-ONTARIO ACCORD

THE CANADA-ONTARIO ACCORD

In 1975, the Governments of Ontario and Canada signed an Accord designed to establish a co-ordinated effort in the protection and enhancement of environmental quality. (Appendix 11).

The Canada-Ontario Accord concerning environmental matters recognizes that the two senior levels of government have interest in the field of environmental quality and control and provides for cooperation between the governments to protect these interests while avoiding duplication of efforts. Under the Accord, the two governments often consult on possible environmental effects of proposed major industrial developments. This is particularly significant in the northern regions where the Federal Government, through financial support programs such as those administered by the Department of Regional Economic Expansion, may encourage such developments and their associated infrastructure.

The Federal government intends to establish national baseline ambient quality objectives for air and water. It will then promulgate regulations and guidelines under The Fisheries Act, The Clean Air Act and The Contaminants Act.

The regulations that are promulgated federally have legal application in Ontario. Guidelines on the other hand are not Federal laws and the Province has agreed to adopt by regulation federal emission guidelines provided that these have been mutually agreed upon.

The enforcement of the federal regulations and guidelines is being left mainly to the provinces, although co-operative action is frequently taken. The province is given authority to enforce federal regulations under the statutes to which the Accord is related.

In the northern regions, the Ministry of the Environment has agreed to co-operate with the Federal Government in the identification and solution of pollution problems in isolated locations which may be more readily accessible by Ministry staff. The Ministry will also assist in emergency situations such as oil spills involving Federal facilities which are within the normal geographic area of the Ministry's activities. As well Ministry staff provide technical advice to native peoples on request, when an environmental problem is perceived by them, and will take corrective action if the source is within provincial jurisdiction.

The Federal government has been active in outlining regulations and guidelines for waste effluent for the pulp and paper and mining industries. However, similar regulations and guidelines for air contaminants are still in the process of development. Thus, if and when federal regulations are made (only in cases of hazardous materials, e.g. arsenic, mercury) enforcement will be on a cooperative basis between the two agencies. If and when federal emission guidelines are promulgated, they must be adopted into provincial regulations where such guidelines have been agreed to and enforcement would be provincial.

The Federal Government has established by Cabinet directive the Environmental Assessment and Review Process (EARP) under the Minister of Fisheries and Environment. This process applies to any undertaking carried out by a department or agency of the Federal Government.

Unlike the provincial environmental assessment process the EARP process places the onus on the proponent agency to decide whether or not the undertaking has significant environmental effects.

If the proponent feels that there are no significant environmental effects he can proceed with the project with mitigating measures if required.

If, on the other hand, there are significant effects the proponent must prepare an Environmental Impact Statement (E.I.S.) in accordance with guidelines prepared by the Environmental Assessment Panel. The panel is established by the Department of Fisheries and Environment and is new for each project received.

The Panel reviews the E.I.S. in a public forum and makes recommendations to the Minister of Fisheries and Environment who can adopt or alter this recommendation and make a decision as to whether the project should proceed, proceed with modification or not proceed. The Minister makes this decision in consultation with the Minister of the proponent agency and any conflicts are resolved at Cabinet.

If the undertaking is proposed in Ontario, the Province conducts a co-ordinated review of the project and appears at the hearings if they are held. The Ontario Ministry of the Environment is responsible for co-ordinating this provincial review.

The Polar Gas pipeline proposal to bring gas from the high Arctic Islands to an existing Trans Canada Pipeline facility in Northern Ontario is subject to the E.A.R.P. process. The reason for this is that any new pipeline or extension to an existing pipeline that crosses provincial boundaries falls under Federal jurisdiction.

The proponents of this undertaking are Trans Canada Pipelines, Panarctic Oils Ltd., Ontario Energy Corporation, Petro-Canada, Tenneco Oil of Canada Ltd., and Pacific Lighting Gas Development Company. They will likely be making a submission to the National Energy Board (N.E.B.) in the near future which in turn will conduct public hearings. At the same time an E.A.R.P. panel will be established to review the Environmental Impact Statement (E.I.S.).

The Ministry of the Environment will be co-ordinating the Provincial review of the E.I.S. under the E.A.R.P. process.

It has not yet been determined what aspects of the project will be heard by the N.E.B. and what aspects will be heard by the E.A.R.P. panel. The Commission may wish to consider this matter and make recommendation as to how the concerns of the people of the north can and should be addressed.

CHAPTER 5

# NEED FOR ENVIRONMENTAL SAFEGUARDS IN THE NORTH

NEEDS FOR ENVIRONMENTAL SAFEGUARDS IN THE NORTH

The vastness of the north with its seemingly endless resources appeared in the past to promote a pioneering outlook where only the rate of exploitation was of concern. More recent events suggest that, though much of the area is vast and relatively unspoiled, the need for environmental safeguards is equally as important as it is in the highly developed areas in Southern Ontario.

As previously mentioned, climatic conditions dictate a short growing season which lowers the degree of regeneration. Barren land becomes susceptible to erosion causing the loss of valuable and, in many cases, marginal supplies of topsoil which, in turn, makes rehabilitation very difficult.

The low buffering capacities and lower assimilative capacities for nutrients of Northern Ontario Lakes mean that land drainage, air pollutants, and effluents from mine tailings and other industrial sources, can seriously deteriorate water quality. A number of examples presently exist in the north where environmental safeguards were not applied and serious environmental effects resulted. Sudbury shows the ill effects of sulphur dioxide fumigation on vegetation and the extremely slow rate of recovery. The same sulphur dioxide emissions have acidified a number of the recreational lakes in the area. The English-Wabigoon water system has been seriously degraded by wastes from a pulp and paper and chlor-alkali plant complex located at Dryden. These wastes have not only downgraded water quality but have caused heavy economic losses to tourism and changed the life style of the native peoples in the area. Other

examples of misuse of the environment are shown by the mining industry. Gold mines in Geraldton, Pickle Crow and Red Lake areas have been abandoned with inadequate controls of contaminants leaching from the tailings areas. Not only does this present a potential water quality problem, but in many instances is also aesthetically a permanent scar to the natural environment.

All of this evidence strongly points out that environmental safeguards are essential in the north and that standards must be at least as stringent as for the rest of the province.

The Ministry's water and air standards and guidelines are based, respectively, on assimilative capacity of the receiving body of water and atmospheric dispersion capabilities. Given that environmental concerns throughout the Province are evaluated on this basis then the specific sensitivity of the "Northern Environment" is taken into consideration because the permitted emission varies with the capacity of the receiving environmental component.

Before leaving this subject, it should be pointed out that the Ministry receives many arguments that application of pollution controls should be less stringent in the north with respect to items such as solid waste disposal sites, private sewage facilities and the like. Generally, it is suggested that, due to the sparsely populated nature of the area, standards well below those required in the more densely populated south would be adequate. Where possible, the Ministry gives recognition to the regional disparities in assessing

requirements, but by the same token, recognizes that many serious environmental and health problems have occurred in the north as a result of shortcuts in the past.

Inherent in the feeling that environmental standards are unnecessary or can be less stringent in the vast area of the North, is the idea that development can proceed with minimal regard for the effects on plant and animal species, and their habitat, on the assumption that "there is a lot more of the same" to be found elsewhere.

This assumption is not valid, for it fails to recognize the complex, interrelated, and interdependent nature of the various physical components of the environment and the living species which depend upon them. Each species occupies its own particular niche within an ecosystem and cannot be randomly interchanged or moved about. Species are dependent upon the correct habitat, and small areas within the wide expanses of the North can turn out to be critical to the survival of particular species. This emphasizes the importance of studying the area to be affected by a proposed development, thus identifying and evaluating the probable effects before the action proceeds.

Difficult judgements will be required when situations are identified where an economically attractive development may jeopardize the survival of a species. The decision is especially difficult when the threatened species has no apparent economic value. A similar difficulty arises with respect to conflicts between proposed develoment and aesthetic values, the preservation of wilderness, or effects on archaeologically

significant areas - all things which are difficult to evaluate from an economic standpoint.

There are, however, certain utilitarian aspects to be considered when dealing with the less-familiar components of the natural environment. Some of these are discussed below.

1. Stability of Natural Systems

A diverse environment is a stable environment. In fact, ecologists have established that ecosystem stability varies directly with ecosystem diversity. Mono-cultures, and other manipulated systems are much more susceptible to sudden outbreaks of pests and disease than diverse natural systems. Great amounts of energy must be expended to maintain systems of low diversity. For example, if natural predators are removed from a system, the prey species can reproduce at will, exploiting its habitat. If this conflicts with man's use of the area, it may be necessary to resort to energy or labour-intensive control measures.

2. Natural Monitoring

Natural systems provide natural devices for monitoring ambient environmental quality.

Lichens can be used to monitor low levels of nitrous oxides, and a study is currently underway in Ontario to determine if the white pine is a natural monitor of low level radiation. The greater the diversity of species present, the

greater the likelihood of having a natural monitoring system available.

3. Genetic Resources

Given the complexity of the interactions and interrelations between species and components of the environment, it is impossible to say that a particular component is non-essential or without value. Each species is a genetic resource which, once lost, is virtually impossible to replace. These genetic resources may eventually be of great value for medicinal, or other purposes, so should not be disregarded as unimportant.

4. Recreation

The value of outdoor recreation, defined in the broadest possible terms, must be kept in mind. The opportunity to participate in outdoor recreation is of particular value in relieving the stresses of our society. Recreation in the north means more than traditional hunting and fishing; it also includes non-consumptive uses such as canoeing, and wildlife observation.

5. Education/Research

From scientific perspective, we need to know how existing ecosystems work. An intact ecosystem provides a natural museum and classroom for teaching of our young and old alike; it also provides a system to which man can compare his manipulated environment and learn the true consequences of his actions.

This is not meant to present a case for the preservation of all of northern Ontario. It is an attempt, however, to illustrate the rationale for consideration of the natural system of the North during the planning of future development.

# CHAPTER 6

# ECONOMIC IMPLICATIONS

## ECONOMIC IMPLICATIONS

### A. Environment and The Economy

The current economic climate in Ontario has prompted some people to suggest that industries cannot afford the pollution abatement programs required by the Provincial and Federal governments, and that stringent environmental standards are "drying up" investment in Ontario and are detrimental to the provincial economy.

This argument is largely unsubstantiated and in fact various economic reports including one by the Conference Board of Canada attribute Canada's uncompetitiveness primarily to high wage cost, price and wage controls, small markets and labour unrest rather than environmental controls. This was brought home in Premier Davis' recent visit to Japan. In an interview on CBC radio on October 3, Mr. Davis was asked about Japan's reported concern over Ontario's stringent environmental laws and he responded that at no time did anyone express this concern to him.

Concern for environmental quality is not unique to Ontario. Other jurisdictions with which Ontario must compete for investment are also concerned with protecting the environment.

One of Ontario's closest competitors, the United States amended its Water Pollution Control Act in 1972, establishing guidelines that are probably the most stringent water quality objectives yet announced by any government. These guidelines

are accompanied by a timetable for compliance culminating in a zero discharge by 1985. There is air quality legislation requiring industry to control air pollution in a similar manner.

The Swedish Environmental Protection Act, 1969 requires present or potential polluters to obtain a permit which establishes conditions and standards to be met by the polluting activity.

The Federal Government of Canada is developing various air emission and wastewater effluent regulations which will provide a baseline level of emission standards which all provinces in the country are supposed to achieve. However enforcement of these regulations is primarily up to the various provinces.

British Columbia is preparing air and water effluent guidelines for the pulp and paper industry which are at least as restrictive as those in Ontario.

The Quebec Water Board has published Directives for reducing air and water pollution from the industry and has established effluent objectives.

In February 1977 the Alberta Government published guidelines for the preparation of Environmental Impact Assessment under the authority of The Land Surface Conservation and Reclamation Act, 1973.

It is evident that Ontario is not the only province with environmental standards. The permissible levels of effluent discharge may vary from one Province to another but it is evident that the decision of an investor to locate in, or outside of Ontario will not likely be based on Ontario's environmental requirements alone.

In view of these actions in other jurisdictions, the argument that industry will locate in the U.S or elsewhere in Canada because of less stringent environmental requirements is unsubstantiated.

Pollution itself causes many types of damages, some of which can be measured in terms of dollars. These damages occur as the assimilative capacities of the natural systems are exceeded, due to an excess of waste being discharged to them. For example, excessive BOD loading to a waterbody can deplete the oxygen supply enough to eliminate the fish population. If a group of people relied on commercial fishing in that waterbody for their livelihood then they would have to look elsewhere for employment or to the government for economic assistance. Water pollution also requires that downstream users incur costs of water treatment. On the other hand many of the air and water pollution damages are intangible and difficult to measure quantitatively or immediately. Health effects are examples of this type of damage.

There are many enterprises that contribute to the Provincial economy that are non-polluting and therefore are not affected by environmental standards. The facilities that pollute the most are usually older ones which will eventually have to be replaced for reasons other than waste disposal. The extra cost of making a new plant meet environmental standards is generally less than adding abatement facilities to older plants.

Pollution abatement often means improved efficiency and less waste. The recycling of usable by-products, which were previously considered waste, and improved efficiency can make industries more competitive. This will create economic growth with reduced pollution. Abatement activities themselves boost the economy by creating jobs through the designing, manufacturing and installation of equipment. The technical opportunities for shifting towards non-polluting goods and services are many and such a shift can boost the economy.

In the past, industries have been creative and successful in responding to economic and technical challenges. There is no reason why they cannot be equally as successful in meeting these environmental challenges.

It would be naive to suggest that pollution control never causes problems. It is possible that some economically marginal investments may be precluded or altered in timing because of these "additional" costs. This is reported to be one of the reasons for Abitibi Forest Products Limited's decision to close down the sulphite pulping operation in Thunder Bay. It would

require in depth research to determine the extent to which environmental concerns affect capital investment in the region related to municipal and industrial undertakings. However, they do not appear to have prevented investment by two major industries in Northern Ontario to date.

The kraft pulping operations in the Northwestern Region, of which there are seven, have completed or are currently working on, major modernization and/or expansion program. There has been little suggestion that the current level of environmental controls required at these mills significantly affected the timing of the programs and the fact that they are proceeding with the required controls, speaks for itself. Similarily, in the mining industry, the new mine/mill operations built over the past few years indicates that this industry can function within Ontario's environmental framework. However, as environmental standards become more stringent, e.g. requirement for flue gas desulphurization or other advanced forms of pollution abatement, the economic impact may be more significant. There is no doubt that such impacts must be assessed in planning such undertakings. It remains however that allegations of environmental standards in Ontario stifling economic growth are unsubstantiated and, in fact, pollution abatement can be beneficial to the overall economy of the Province.

As previously discussed The Environmental Assessment Act in Ontario does not universally apply to private sector undertakings at this time. The Government may however pass a regulation placing a private proposal under the Act and therefore requiring that a proponent submit an environmental

assessment for approval under the Act prior to proceeding with an undertaking. The Act will likely be applied to large, complex proposals and not universally to all industrial undertakings.

It is understandable that some companies are apprehensive about the EA process as they are of any new concept. This apprehension is due mainly to uncertainty and an unfamiliarity with the process in Ontario.

Many of the larger companies to which the legislation would likely be applied have experienced similar processes in other jurisdictions (e.g. N.E.P.A., EARP) and have not been threatened by it. Several industries (e.g. Kimberly-Clark, Gulf Oil of Canada Ltd, Elliot Lake, Esco Steel, and Texasgulf Ltd.) which have voluntarily gone through the E.A. process have realized several benefits.

## B. Industrial Involvement in the Environmental Assessment Process

Large scale undertakings carry with them potential effects on community development and life styles, local and regional economies and the local environs.

The Environmental Assessment process was conceived to establish a planning process in which the potential effects of the undertaking could be predicted. Once predicted they can be accomodated in the case of needs for expanded infrastructures in a community or minimized in the case of environmental degradation.

The public is requesting and in some cases demanding input into decisions affecting their life styles and surroundings. The EA process provides a formal mechanism for such public input.

Voluntary and legislated uses of the environmental assessment process have demonstrated the following benefits:

(1) The decision-makers are provided with a comprehensive document containing information about the potential social, economic and environmental implications of a proposal upon which they can base their decisions and future planning. It also contains the information necessary for making tradeoffs when conflicts in government policies arise. These tradeoffs are made by Cabinet and not by the Minister of the Environment. In the cases where a hearing is required the tradeoffs are made by the Environmental Assessment Board with the Cabinet having the opportunity to vary the decision within 28 days.

(2) The company is provided with a clear articulation of the various problems associated with its proposal at a stage when they can be avoided or mitigated.

(3) The company is provided with a coordinated government reaction to its proposal, therefore eliminating much of the uncertainty associated with new undertakings.

(4) The public is provided with an opportunity to participate in the planning of projects affecting them.

The following are cases where private industries have applied the EA process. Although all cases do not pertain to the north there is no reason to believe that the results will not be the same.

Case 1

Kimberly-Clark of Canada Ltd., carried out a voluntary EA on their proposed paper mill expansion in Terrace Bay. In a letter dated February 9, 1976 the company wrote:

"Our Environmental Assessment, together with the discussions and exchanges with your Ministry and others regarding it, greatly assisted us in identifying potential problem areas in the early stages of our project and enabled us to incorporate appropriate modifications during 1975 in the overall development."

The Environmental Assessment proved to be a useful document for the Government in arriving at its decisions about the project as all relevant information is collected in one place.

Municipalities to be affected by the increased work force required for the project made extensive use of the Environmental Assessment document in preparing their own submissions to the Government outlining their requirements for provision of water and sewer servicing, education, health care, and other community services.

Case II

In the case of Esco Steel, the company's own design process benefitted from carrying out the Environmental Assessment, but the most remarkable benefit was in community relations. The town of Port Hope where the company ultimately proposed to locate its foundry operation had recently been the location of considerable environmental controversy surrounding radioactive wastes traced to Eldorado Nuclear Ltd. By conscientiously studying the effects that the foundry might have on the community and the natural environment, and by providing an opportunity for the public to contribute to this process, Esco Steel has received very favourable community reaction.

Indeed, a lead editorial in the local newspaper praised the company for its voluntary compliance with the principles of The Environmental Assessment Act:

ESCO HAS A BETTER IDEA

> If the current procedure being carried out by Esco is a sign of things to come, environmentalists may have reason to be hopeful. Esco is planning to expand its current operation in Port Hope with a $3.5 million foundry, located on its present property on Peter Street.
>
> Though not yet compelled by law, the corporation which produces buckets for heavy construction equipment has decided to follow the guidelines for industrial expansion as laid down by The Provincial Environmental Assessment Act of 1975.
>
> Esco had hired a private environmental consulting group, Ecologistics Limited, to research the possible effects of the new foundry. The group has begun investigations into all areas of ecology from noise level to possible effects on the erosion of the nearby lakeshore. To date the environmental group has found nothing which would give reason for concern about the proposed expansion.
>
> Along with the Ecological studies, Esco want to involve the residents of Port Hope. The corporation wants to find out how people feel about a foundry in their town. They are interested in hearing the good and the bad.

Esco has already planned to hold a public meeting in order to receive input from the town citizenry. If problems are raised as a result of that meeting, the corporation proposed to hold another public meeting in order to report back to the community.

This style of environmental preventive medicine is an encouraging development in the industrial field. Esco is to be commended for initiating the action.

Case III

When Texasgulf Ltd., wanted to expand their copper smelter and refinery in Timmins they carried out a voluntary environmental assessment.

The document proved extremely useful to affected agencies who would ultimately be required to react to the increased demands placed on the local community in the areas of housing, traffic, health care, education, police and fire protection and energy requirements.

The fact that much of the necessary information was contained in one document allowed the government agencies to plan strategies for dealing with these increased demands much more quickly.

Case IV

The Monsanto Chemical Company did a voluntary Environmental Assessment on their proposed Polystyrene plant in southeastern Ontario.

While proceeding through the Environmental Assessment, the company identified several technical, legal and social problems with respect to their proposed site near Second Marsh. As a

result of identifying these problems early in their planning they chose to locate at another more suitable site in Cobourg. The introduction to Monsanto's report provides an interesting illustration of the company's attitude towards environmental assessment.

> Ever since man first crawled out of the cave, he has been changing the world he lives in.
>
> He squandered the bounty of his planet, twisted its countours to his needs, left his work of destruction everywhere. He has given little thought to the ultimate effect of all his tinkering, tampering, and trampling.
>
> He simply believed it was necessary.
>
> But now a rude awakening has come - and with it alarm for the world's plight. Man has begun to ask himself: "Am I destroying my world, wearing it out, fouling my own nest? Am I taking more, consuming more and wasting more than I can ever replace, leaving nothing but dust and ashes for my children and my children's children?"
>
> The above statement could have been written by a governmental agency as justification for a community and environmental impact assessment statement about the proposed Monsanto Polystyrene Plant in Cobourg.
>
> On the contrary, it was written by Monsanto in their publication, "Meeting the Environmental Challenge". Nevertheless, it is in this spirit that this assessment is prepared for the Township and the public".

Case V

Gulf Oil of Canada Ltd., in carrying out their voluntary Environmental Assessment on an expansion to their Clarkson Refinery identified many community concerns through their public participation program. By working to resolve these concerns the company avoided potentially lengthy and costly confrontations.

Case VI

The current environmental review of the Elliot Lake uranium mine expansion under an Order-in-Council, has already resulted in an increased awareness of the implications of radioactive material for a community.

The process has led to the formation of a government working group consisting of many of the agencies which will ultimately be involved in approving future aspects of the project and associated infrastructure. The final outcome will be a co-ordinated government evaluation of the proposal.

These six examples illustrate that the environmental assessment process can be beneficial to the government and the public as well as to companies planning new undertakings in Ontario.

CHAPTER 7

# PUBLIC PARTICIPATION AND THE COMMISSION PROCESS

## PUBLIC PARTICIPATION AND THE COMMISSION PROCESSES

### A. Introduction

The Hartt Commission presents a tremendous opportunity to involve the public in shaping the future environment of the entire Province. It is recognized that many of the suggestions presented in this section of the Ministry's submission may have already been considered or adopted by the Commission.

At each stage of preparing these comments the question ultimately asked was, "What can reasonably be expected of the various actors involved?" The resultant comments are purposefully broad and general because the dynamics of the Commission processes, as in defining the scope of the issues will determine the character of public involvement. To suggest that a pre-determined public participation programme must be designed and adhered to religiously at this time would be the same as providing a solution before the question is asked. It is recommended that the Commission adopt a flexible approach or strategy to the public participation programme so that the needs of the various actors involved can be facilitated. The relevant experiences of recent Royal Commissions should be drawn upon along with appropriate theoretical frameworks to achieve the goals and objectives of the Commission. The following comments attempt to highlight some of these features.

B. Public Participation Defined

At the October 1977, Canadian Conference on Public Participation, two definitions were presented which help to describe what is meant by the elastic term public participation:

1) genuine public participation is the sharing by individuals and groups in the formative stages of decisions which affect them; (paraphrased)

and,

2) "a component of the democratic system which permits non-elected members of the community to exercise some control over decision making which goes beyond elections" (Burton et al).

T.L. Burton's discussion of the later definition suggests three key characteristics are necessary for public participation to occur:

1. emphasizes public sector decision making;
2. emphasizes the involvement of non-elected, non appointed members of a community;
3. stresses a degree of control over decision making that goes beyond voting in elections.

C. Citizen Groups as a Resource

It is important for the Commission to view citizen groups as a resource in all phases of the Commission's work. The relationship of the Commission with citizen groups should foster a two way flow of information, ideas and responsibilities. The Commission has much to gain from the energy and commitment, capabilities, innovative approaches and the information and knowledge of citizen groups.

D. Commission Processes

1) Preparations - Time and Money

In order to achieve the objective of involving the public in the Commission's work, citizen groups will need time and money. The determination of what is considered to be sufficient lead time and adequate funding arrangements for public groups should be arrived at through discussion with interested public groups. The approach used by the Berger Commission was to provide funds in the order of $1,000,000 to Native groups and $500,000 to environmental groups with instruction to come back prepared within one year. One critical element in establishing credibility with the public groups is the administration of Commission funding to these groups. Initially public groups should be allowed the opportunity to form group coalitions for the purposes of Commission funding without the direct involvement of Commission staff.

Available funds budgeted for citizen groups should not be expended until people have had a chance to survey the issues and map out how they would like to participate in the Commission's work. It is recommended that the Commission avoid arbitrarily imposing conditions or forcing marriages between citizen groups as conditions of funding. It is unlikely that the public groups will fail to form coalitions if they are given a fair chance. Some initial "seed money" may be necessary to assist key groups in communicating with other interested parties and establishing the primary linkages. As the issues of the inquiry become clear more people may want to join-in, while others may wish to discontinue their involvement. The Commission should not hesitate to discuss the availability of funds with groups on a regular basis.

2) Availability of Information

All parties involved in the Inquiry would benefit from the exchange of information that could be contained in a newsletter or digest. A publication by the Commission similar to the Ministry of the Environment digest EA Update would be a useful vehicle for distributing information. Such information as a listing of contact people with the public groups, timetables for hearings, schedules of meetings, and resource materials could be included in the digest. The publication might also be a good forum for publishing of author prepared abstracts of submissions presented to the Inquiry. This would help people who are unable

to attend all of the hearings to keep abreast of the direction and the nature of testimony.

3) The Advanceman

The Commission would be wise to employ the services of an "advanceman" in taking the Inquiry to the people. The duties of the advanceman would be to convey the message of the Commission to communities, public groups, non-organized people, and the private sector and solicit their input and involvement. In other words the advanceman would be "beating the bushes" to ensure that people were aware of the work of the Inquiry, had the necessary information and prepared submissions to the Commission. Part of the success of Berger's northern community hearings has been attributed to the effective role of the advanceman. The advanceman contacted all community leaders and made sure that they knew that the Inquiry was interested in their position. Hearings were only held in northern communities after the local groups indicated that they had completed their preparations and were ready to participate.

4) Public Education

A coordinated public education programme on the issues facing the future development of the north, north-south relationships and the opportunities, challenges and responsibilities therein is a necessary component of the

Inquiry's work. The process of educating the public should extend beyond direct contact with the public at hearings or indirectly through the media. The educational perspective of the Inquiry should reach those who will be directly affected in implementing the recommendations of the Commission. Specifically, the youth of the Province and particularly those in the north should be the prime target. High school curriculum development on northern environmental issues, governmental processes, north/south travel exchange programmes, and liasion with formal and voluntary teachers organizations would all facilitate public education. It is important to note here that the Ministry of Education and OECA could have a critical role to play in this regard.

Research efforts by the non-organized but interested publics could also provide valuable resources to the Commission. University student research groups would fall into this category.

The commission might also consider establishing a technical reference library that would be available to the public through existing community, university and college libraries.

Another important element in the educational aspects of the Inquiry's work is the education of southerners in the ways and problems of the north. The previous suggestions on school curriculum etc. are as equally important in the south as in the north.

5) Relations with the Media

The media has a very special role to play in bringing the issues and the progress of the Inquiry to the people of the Province. All forms of the mass media should be employed in the Commission's works. Special agencies like OECA and opportunities such as NFB's Challenge for Change programme should be explored for potential involvement either directly or through public groups.

E. The Hearing Process

A great deal of experience has been gained by all levels of Canadian government in dealing with hearings on a broad range of environmental matters. Suggestions specifically dealing with the nature of the hearings processes are listed below:

1. Where: The locations of the hearings should be designed to fulfill the Inquiry's objectives and to facilitate public input. Although the nature of the issues may be perceived to be northern issues, the scale of the hearings should be Provincial. Decisions will have to be made on holding hearings in the southern part of the Province as well as in the north. Also, decisions on the character of the southern hearings will be required. A reasonable approach would be to hold southern and northern informal hearings for the purposes of information gathering and then hold the more formal hearings in the north.

The eventual recommendations of the Inquiry will likely have greatest impact on the day-to-day lives of the people living in the north. The Commission should make its recommendations in the north based on the information gathered from northerners, southerners, industry and Government.

Once the overall strategy for the hearings has been agreed upon, decisions on specific locations will be required. The Commission should make a concerted effort to visit every community north of 50. For northern communities south of 50 a representative sample of communities should be visited.

2. When: Recognizing that the people of the north are dispersed over a wide geographic area with somewhat limited transportation linkages, the timetable of the hearings should not be rigid or tight. People should be asked to contribute when they are prepared. Experience suggests that these comments are particularly true for the Native peoples. Hearing and meeting schedules should also reflect the daily and seasonal employment patterns of northerners. Employment activities of the traditional hunter and trapper, the summer tourist operator, the mill worker on shift work and school timetables must all be considered in establishing appropriate hearing schedules. Hearings should be held in both Native and non-Native communities in the north.

3. Pre Hearing Preparations: Advance publicity should be sufficient to let everyone know that the Commission is coming to town. If the advanceman has done his job the people will have had the time, information and money necessary to make a prepared presentation. For people who may not want to get involved in a formal public group, it might be a good idea for the Commission to operate a Zenith telephone information service. Pre hearing information must be readily available to all people who express an interest.

4. Technical Aspects: Since some people are intimidated by sophisticated communication devices, the Commission should be sensitive to the reactions of people to technical equipment while giving testimony. Physical comfort and acoustical characteristics of meeting places should also be investigated before the arrival of the Commission.

5. Formality: The style of the hearings should be geared to the needs of the people who appear before the Commission. Formality should be minimized allowing people to say what is on their mind. This point relates closely to the question of cross examination. The Berger approach did not allow Native peoples to be cross examined in their testimony. In some cultures in the far north a man's word is never questioned and to cross examine a man on his word would bring dishonour to him. The Commission should thus be sensitive to the cultural differences it will encounter and set its rules accordingly.

6. Hearings: When commencing hearings and meetings, the Commission must take great care in pointing out the objectives of the Inquiry and the powers of the Commission. The realisms and relevance of the Commission's objectives must be made clear to the public on an ongoing basis. Commission staff should monitor the representativeness of people giving testimony and attempt to identify and seek out people or groups who may not be participating. (i.e. non-organized groups like youth, or Metis groups)

Industry and the private sector must be encouraged to participate in the hearing process in order to achieve a balanced perspective on northern development.

7. Role of Counsel and Expert Witnesses: Some people will require legal counsel on a full time basis while others will only retain counsel for opinion on procedural matters. While the role of counsel should not be unduly restricted during the hearings the Commission could reduce the need for legal counsel. It is suggested that the Commission engage the services of a public advocacy lawyer to tutor and coach public groups on how to prepare presentations and questions before the Commission. This was done at the Cluff Lake Hearings in Saskatchewan with considerable success. Such "legal teachers" could be contacted through the Canadian Consumers Association, Ottawa or the Canadian Environmental Law Association, Toronto.

The Commission will be required to define the role of expert witnesses in the inquiry. Public groups will argue that they are at a disadvantage if the Government and private sector extensively use their experts to make their case. The citizen groups are correct in their understanding because if a balanced perspective is to be reached both sides must be given an equal chance to make their case. In anticipation of numerous requests for funding for experts, the Commission might entertain the idea of having the Commission invite and fund all non governmental expert witnesses. When an issue arises that requires expert testimony, the Commission could approach all parties (private sector and public or community groups) and request that they identify several experts that they feel would represent their positions. Through negotiation a consensus could be reached and three or four (or more) experts representing the differing view of the various parties could be asked to appear on a selected issue.

8. Reporting: It is important for the Inquiry to maintain a flow of information to the people of the Province. The use of interim reports would update people on the direction of the Inquiry. This would also assist government in the early implementation of the Commission's recommendations. Transcriptions of the hearings should be available to the public at cost. The Commission might also consider providing the meeting and hearing materials in the Native languages of Cree and Ojibway as well as English and French.

9. Overlap with Other Hearings: The potential for serious overlap with other hearing processes always exists. The current MNR Strategic Land Use Planning Programme, Polar Gas planning and hearings under The Environmental Assessment Act among others all make demands on public groups for input. It is highly unlikely that public groups will be able to cope with all these competing demands.

Commission involvement with other planning development proposals in the north should emphasize the need to maintain flexibility for the implementation of the Commission's recommendations.

## F. Evaluation of Public Participation

An evaluation process should be built into the Commission's public participation programmes at an early stage. The importance of an evaluation process will be most apparent after the hearings are completed and the Commission must decide whose advice was most acceptable.

The evaluation of presentations should be based on content and not on the "size" or "power" of the group making the presentation. Interim evaluations of the programme may also assist the Commission in discovering whether all significant groups are indeed involved in an effective way.

# CHAPTER 8

## ISSUES

## ISSUES

### A. Introduction

The mandate of the Commission is extremely broad and spans a wide area of subject matter, concerns and geographical area.

It is likely that the Commission will be swamped with numerous concerns. In order to make the best use of the time available it will be necessary for the Commission to identify the more critical issues and concentrate on these. If the broader, more critical questions can be resolved than hopefully the smaller issues will subsequently be resolved.

In this section the Ministry will present what it feels are some of these broader issues that the Commission might want to address.

### B. Desires of the Local People

The mandate of the Commission establishes the importance of addressing the implications of development for the people of the north. This is seen as a need to understand the aspirations of the native and non-native residents of the north. The Commission will need to understand the way of life of the northern inhabitants and the implications of development for that way of life. By having knowledge of these three subjects

it is hoped that the Commission can make recommendations as to how planners of projects in the north should take into account the wishes of the people affected.

The question of native rights and claims and their relationship to development is of particular concern. Is there a balance that can be struck which, for the forseeable future, will provide a co-operative atmosphere devoid of conflicts? If the Commission can provide insight and at least partial solutions to this problem, much will have been accomplished.

It is hoped that the Commission will hear from all sectors of the northern population in order that the recommendations can reflect the wants of the majority.

C. Northern Economy

The economic problems of the north stem from several causes with the biggest problem probably being the narrow base of resource extraction.

The one industry town is faced with an unstable tax base: in effect, all its eggs are in one basket. If that one industry runs into difficult times or folds the municipality often follows suit.

The nature of extractive industry requires that it be where the resource is. Therefore when a resource is developed a community will "boom" nearby. However, a mine won't last forever. What happens to the people who are suddenly out of work when that one industry folds?

The Commission should investigate the nature of the economy of the north and consider alternative ways of resolving the problems. These solutions might lie in bringing in secondary industries or in training the local people for the jobs that are available in an effort to decrease the reliance on transient labour.

D. Co-ordinated Planning

The north is particularly sensitive to sudden change. This is evident in that regeneration of vegetation as well as assimilation of pollution are slower than in southern climates. Economic changes as well can have serious implications for communities that could take years to correct. It is important therefore to have comprehensive planning in order that effects can be predicted and mitigated.

The Environmental Assessment Act provides a planning process for specific projects which can take into consideration the desires and aspirations of the people affected as well as the impacts on the total environment.

The Environmental Assessment Act however functions best within a planning framework where the broader policy outlines exist. This framework does not exist for Northern Ontario.

The Commission could consider alternative strategies and recommend policies for the development of the area north of the 50th parallel. At the same time it could make recommendations as to how The E.A. Act should be applied to private undertakings in the north.

Another aspect affecting development in the north is the lack of organized areas. The difficulty is the creation of a tax base sufficiently large to fund the provision of services. The Commission could assess the problem and evaluate alternative solutions.

## E. Environmental Implications

The northern environment is still a frontier in many ways. Predicted effects of developments in the south cannot be readily translated to the north and in many areas the impacts of various developments are not fully understood.

An example of an unknown is whether or not sustained yield forestry is possible or practical in the more northerly regions. A more fundamental question can be asked. Is sustained yield of renewable resources in the north desirable?

The degree of protection of the environment can range from a recognition of the environment's natural regenerative and assimilative capacities to a requirement that all man's activities be matched by best practical, or best available, technology. It is hoped that the Commission's findings will shed light on the expectations of all segments of the population regarding this matter.

As well the Commission should make recommendations as to the desirability of sustained yield and the need for environmental safeguards.

Renewable resources can be exploited or managed. If properly managed they can contribute to the economy on a continuous basis. The Commission should address the uses of resources and the concept of non-resources as presented in this submission. Also the question of who is responsible for managing the resources, including regeneration should be examined.

F. Transportation and Communications

The vastness of Ontario provides a communications barrier. Not only are there communication problems across the north but also between north and south.

This can take the form of a lack of electronic communications such as radio and television or more importantly a lack of understanding of the problems of the northerner by the southerner and vice versa.

The large transportation distances add significantly to the cost of products for the northern people. This is especially true in areas where there is not a well developed transportation network.

The Commission in addressing this could give thought to the needs of the various communities. They should also consider any negative implications of expanding the transportation and communications networks in Northern Ontario.

G. Decommissioning Projects

If not properly rehabilitated an abandoned project can continue to pollute the environment for years (e.g. mine tailings).

The Commission may wish to evaluate the mechanisms for handling abandoned operations, particularly where townsites exist.

Decommissioning also has implications for the town with which the activity is associated. The Commission could consider the long-term costs of maintaining a townsite vs. relocation.

H. EARP In Ontario

As demonstrated by the approch to the Polar Gas proposal outlined in the section on the Canada-Ontario Accord, there is a potential for overlapping hearings.

The Commission may wish to review the various hearing processes acting in Ontario and make recommendations as to how these problems can be resolved. As well it may wish to make recommendations on how the Province of Ontario should interact with the EARP process.

## I. The Reed Proposal

The Reed proposal for locating a new wood using complex in the Red Lake/Ear Falls area and supplying it from new wood limits north of the 51° parallel has been designated under The Environmental Assessment Act, 1975 by O. Reg. #1009/76 (See Appendix 7).

The activity of implementing forest management plans on public lands after July 1, 1978 by the Ministry of Natural Resources is also designated under the Act.

The Ministry of the Environment has been advised by MNR that it expects any approval resulting from the MNR forest management Environmental Assessment to provide a framework governing Reed's forest management and operating plans.

MNR is currently planning to submit its forest management environmental assessment at the end of 1977. It will also be necessary to address the broader land use planning considerations for this area, and MNR intends to do this through the West Patricia Land Use Plan.

As MNR is the proponent of these undertakings it is expected it will provide a more detailed explanation of how it proposes to satisfy its obligations with respect to The Environmental Assessment Act, and coordinate its activities with those of Reed.

On the basis of the Memorandum of Understanding between the Ministry of Natural Resources and Reed Ltd., it appears that Reed's environmental assessment would be formally submitted around mid-1979 at the earliest. But the MNR forest management Environmental Assessment will be submitted to the Minister of the Environment late this year. It is expected that the Environmental Assessment on the West Patricia Land Use Plan will be submitted in 1980.

The Commission may wish to advise the Government by interim report on whether any or all of these environmental assessments should be deferred pending further reports from the Commission or should be proceeded with under The Environmental Assessment Act.

J. Data Base

The question of the amount of baseline data necessary to make informed decisions on northern development is important. The Commission may wish to study the current data base and make recommendations on its adequacy.

K. Wilderness

Since large tracts of northern Ontario have yet to be committed to a particular resource uses the question of the north's wilderness potential may be an issue that the Commission should consider.

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# A P P E N D I X  1

The Environmental Protection Act, 1971

Regulation 15

Ontario Regulation 872/74

Government of Ontario
Ontario

# The Environmental Protection Act, 1971

Statutes of Ontario, 1971
Chapter 86
as amended by
1972, Chapter 1, s. 69; 1972, Chapter 106;
1973, Chapter 94; 1974, Chapter 20;
1974, Chapter 125; 1975, Chapter 70 and
1976, Chapter 49

and

**Regulation 15**
Revised Regulations of Ontario, 1970
as amended by
O. Reg. 873/74

**Ontario Regulation 872/74**
as amended by
O. Reg. 158/75

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# CHAPTER 86

## The Environmental Protection Act, 1971

**1.**—(1) In this Act, Interpretation

(*a*) "air" means open air not enclosed in a building, structure, machine, chimney, stack or flue;

(*b*) "Board" means the Environmental Appeal Board;

(*c*) "contaminant" means any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them resulting directly or indirectly from the activities of man which may,

(i) impair the quality of the natural environment for any use that can be made of it,

(ii) cause injury or damage to property or to plant or animal life,

(iii) cause harm or material discomfort to any person,

(iv) adversely affect the health or impair the safety of any person, or

(v) render any property or plant or animal life unfit for use by man;

(*d*) "Department" means the Ministry of the Environment;

(*da*) "Environmental Assessment Board" means the Environmental Assessment Board established under *The Environmental Assessment Act, 1975*; 1975, c. 69

(*e*) "land" means surface land not enclosed in a building, land covered by water and all subsoil, or any combination or part thereof;

(*f*) "local board" means a school board, public utility commission, transportation commission, public library board, board of park management, local board of health, board of commissioners of police, planning board, or any other board, commission, committee, body or local authority established or exercising any



power or authority under any general or special Act with respect to any of the affairs or purposes, including school purposes, of a municipality or of two or more municipalities or parts thereof;

(*fa*) "local municipality" means a city, town, village or township;

(*g*) "Minister" means the Minister of the Environment;

(*ga*) "Ministry" means the Ministry of the Environment;

(*h*) "municipality" means the corporation of a county, metropolitan area, regional area, district area, city, town, village, township or improvement district and includes a local board thereof and a board, commission or other local authority exercising any power with respect to municipal affairs or purposes, including school purposes in an unorganized township or unsurveyed territory;

(*i*) "natural environment" means the air, land and water, or any combination or part thereof, of the Province of Ontario;

(*j*) "person" includes a municipality, a corporation on behalf of Her Majesty in right of Ontario, and an agent of any of them;

(*k*) "person responsible" means the owner, or the person in occupation or having the charge, management or control of a source of contaminant;

. . . . .

(*m*) "provincial officer" means a person who is designated by the Minister as a provincial officer for the purposes of this Act and the regulations;

(*n*) "regulations" means the regulations made under this Act;

(*o*) "source of contaminant" means anything that adds to, emits or discharges into the natural environment any contaminant;

(*p*) "water" means surface water and ground water, or either of them. 1971, c. 86, s. 1; 1972, c. 1, ss. 1, 69 (1); 1972, c. 106, s. 1; 1974, c. 125, s. 1; 1975, c. 70, s. 1.

Idem, Director (2) In this Act, "the Director" means a Director appointed

## PART I

### ADMINISTRATION

Purpose of Act

**2.** The purpose of this Act is to provide for the protection and conservation of the natural environment. 1971, c. 86, s. 2.

Powers and duties of Minister

**3.** The Minister, for the purposes of the administration and enforcement of this Act and the regulations, may,

(*a*) investigate problems of pollution, waste management, waste disposal, litter management and litter disposal;

(*b*) conduct research related to contaminants, pollution, waste management, waste disposal, litter management and litter disposal;

(*c*) conduct studies of the quality of the natural environment, meteorological studies, and monitoring programs;

(*d*) conduct studies of environmental planning designed to lead to the wise use of the natural environment by man;

(*e*) convene conferences and conduct seminars and educational and training programs relating to contaminants, pollution, waste and litter;

(*f*) gather, publish and disseminate information relating to contaminants, pollution, waste and litter;

(*g*) make grants and loans for,

(i) research or the training of persons relating to contaminants, pollution, waste or litter, and

(ii) the development of waste management facilities,

in such amounts and upon such terms and conditions as the regulations may prescribe;

(*h*) establish and operate demonstration and experimental waste management systems, litter disposal sites and sewage systems under Part VII;

(*i*) appoint committees to perform such advisory functions as the Minister considers advisable; and

(*j*) with the approval of the Lieutenant Governor in Council, enter into an agreement with any government or person relating to the protection or conservation of the natural environment. 1971, c. 86, s. 3; 1973, c. 94, s. 1.



Appointment of Directors

**3***a*.—(1) The Minister shall appoint in writing such employees of the Ministry as he considers necessary as Directors in respect of such sections of this Act and in respect of such of the regulations or sections thereof as are set out in the appointments.

Limitation of authority of Director

(2) The Minister, in an appointment pursuant to subsection 1, may limit the authority of a Director in such manner as the Minister considers necessary or advisable. 1974, c. 20, s. 2.

## PART II

### GENERAL PROVISIONS

**4.** REPEALED: 1974, c. 20, s. 3.

Prohibition

**5.**—(1) No person shall deposit in, add to, emit or discharge into the natural environment any contaminant, and no person responsible for a source of contaminant shall permit the addition to, emission or discharge into the natural environment of any contaminant from the source of contaminant, in an amount, concentration or level in excess of that prescribed by the regulations.

Exception

(2) Subsection 1 does not apply to animal wastes disposed of in accordance with normal farming practices. 1971, c. 86, s. 5.

Control orders

**6.** When the report of a provincial officer, filed as provided by section 83, contains a finding that a contaminant added to, emitted or discharged into any part of the natural environment by any person or from any source of contaminant exceeds the maximum permissible amount, concentration or level prescribed by the regulations, contravenes section 14 or is a contaminant the use of which is prohibited by the regulations, the Director may issue a control order directed to the person responsible therefor. 1971, c. 86, s. 6.

Stop orders

**7.** When the Director, upon reasonable and probable grounds, is of the opinion that a source of contaminant is adding to, emitting or discharging into the natural environment any contaminant that constitutes, or the amount, concentration or level of which constitutes, an immediate danger to human life, the health of any persons, or to property, the Director may issue a stop order directed to the person responsible for the source of contaminant. 1971, c. 86, s. 7.

Approval of Director

**8.**—(1) No person shall,

(*a*) construct, alter, extend or replace any plant, structure, equipment, apparatus, mechanism or

thing that may emit or discharge or from which may be emitted or discharged a contaminant into any part of the natural environment other than water; or

(*b*) alter a process or rate of production with the result that a contaminant may be emitted or discharged into any part of the natural environment other than water or the rate or manner of emission or discharge of a contaminant into any part of the natural environment other than water may be altered,

unless he has first obtained a certificate of approval issued by the Director for the methods or devices or both to be employed to control or prevent the emission or discharge of any contaminant into any part of the natural environment other than water. 1972, c. 106, s. 2, *part*; 1974, c. 20, s. 4.

Director may require material

(2) The Director may require an applicant for a certificate of approval under subsection 1 to submit any plans, specifications and other information and to carry out and report on any tests or experiments relating to the plant, structure, equipment, apparatus, mechanism or thing or to the methods and devices to be employed to control or prevent the emission or discharge of any contaminant into any part of the natural environment other than water and, subject to subsection 4, the Director may issue a certificate of approval.

Exceptions

(3) Subsection 1 does not apply to,

(*a*) routine maintenance carried out on any plant, structure, equipment, apparatus, mechanism or thing;

(*b*) equipment for the combustion of fuel, other than waste incinerators, in buildings or structures designed for the housing of not more than three families;

(*c*) any equipment, apparatus, mechanism or thing in or used in connection with a building or structure designed for the housing of not more than three families where such equipment, apparatus, mechanism or thing may produce sound or vibration;

(*d*) any plant, structure, equipment, apparatus, mechanism or thing that may be a source of contaminant of a class exempted therefrom by the regulations;

(*e*) any plant, structure, equipment, apparatus, mechanism or thing used in agriculture;



(*f*) any motor or motor vehicle that is subject to the provisions of Part III.

Powers of Director

(4) The Director may refuse to issue a certificate of approval or may issue a certificate of approval on such terms and conditions or alter any terms and conditions in a certificate of approval as he considers necessary,

(*a*) to ensure that any construction, alteration, extension or replacement that is referred to in clause *a* of subsection 1 or that any alteration of a process or rate of production that is referred to in clause *b* of subsection 1, or the methods or devices or both employed to control or prevent the emission or discharge of any contaminant into any part of the natural environment other than water, will result in compliance with this Act and the regulations and any order or approval thereunder;

(*b*) on probable grounds, to prevent or alleviate a nuisance, a hazard to the health or safety of any person or impairment of the quality of the natural environment for any use that can be made of it. 1972, c. 106, s. 2, *part*.

**9.** REPEALED: 1972, c. 106, s. 2.

Submission of program

**10.**—(1) A person responsible for a source of contaminant may submit to the Director a program to prevent or to reduce and control the addition to, emission or discharge into the natural environment of any contaminant from the source of contaminant.

Referral of program

(2) When a program referred to in subsection 1 is submitted to the Director, the Director may, with the consent of the Minister, refer the program to the Environmental Council for its consideration and advice.

Approval of program

(3) The Director may issue an approval to be known as a "program approval", directed to the person who submitted the program. 1971, c. 86, s. 10.

Contents of approval

**11.** The Director shall, in a program approval,

(*a*) set out the name of the person to whom the approval is directed;

(*b*) set out the location and nature of the source of contaminant;

(*c*) set out the details of the program; and

(*d*) approve the program. 1971, c. 86, s. 11.

Approval not to prevent control or stop order

**12.** Notwithstanding the issue of a program approval, when the Director is of the opinion, based upon reasonable and probable grounds, that it is necessary or advisable for the protection or conservation of the natural environment, the prevention or control of an immediate danger to human life, the health of any persons or to property, the Director may issue a stop order or a control order directed to the person responsible. 1971, c. 86, s. 12.

Ministry to be notified when contamination exceeds permitted level

**13.**—(1) Every person who,

(*a*) deposits in, adds to, emits or discharges into the natural environment; or

(*b*) is the person responsible for a source of contaminant that deposits in, adds to, emits or discharges into the natural environment,

any contaminant in an amount, concentration or level in excess of that prescribed by the regulations shall forthwith notify the Ministry of the deposit, addition, emission or discharge, as the case may be.

Exception

(2) Subsection 1 does not apply to animal wastes disposed of in accordance with normal farming practices. 1971, c. 86, s. 13; 1972, c. 1, s. 1.

Prohibition

**14.**—(1) Notwithstanding any other provision of this Act or the regulations, no person shall deposit, add, emit or discharge a contaminant or cause or permit the deposit, addition, emission or discharge of a contaminant into the natural environment that,

(*a*) causes or is likely to cause impairment of the quality of the natural environment for any use that can be made of it;

(*b*) causes or is likely to cause injury or damage to property or to plant or animal life;

(*c*) causes or is likely to cause harm or material discomfort to any person;

(*d*) adversely affects or is likely to adversely affect the health of any person;

(*e*) impairs or is likely to impair the safety of any person; or

(*f*) renders or is likely to render any property or plant or animal life unfit for use by man. 1972, c. 106, s. 3.

Exception

(2) Clause *a* of subsection 1 does not apply to animal wastes disposed of in accordance with normal farming practices. 1971, c. 86, s. 14 (2).

When Ministry to be notified

**15.**—(1) Every person who deposits, adds, emits or discharges a contaminant or causes or permits the deposit, addition, emission or discharge of a contaminant into the natural environment out of the normal course of events that,

(*a*) causes or is likely to cause impairment of the quality of the natural environment for any use that can be made of it;

(*b*) causes or is likely to cause injury or damage to property or to plant or animal life;

(*c*) causes or is likely to cause harm or material discomfort to any person;

(*d*) adversely affects or is likely to adversely affect the health of any person;

(*e*) impairs or is likely to impair the safety of any person; or

(*f*) renders or is likely to render any property or plant or animal life unfit for use by man,

shall forthwith notify the Ministry. 1972, c. 106, s. 4.

Exception

(2) Subsection 1 does not apply to animal wastes disposed of in accordance with normal farming practices. 1971, c. 86, s. 15 (2).

Application of Part not restricted

**16.** Unless otherwise required by the context, the provisions of this Part also apply to the subject-matter of the individual Parts of this Act. 1971, c. 86, s. 16.

Minister may order repair of damage

**17.** Where any person causes or permits the deposit, addition, emission or discharge into the natural environment of a contaminant that injures or damages land, water, property or plant life, the Minister, where he is of the opinion that it is in

the public interest so to do, may order such person to do all things and take all steps necessary to repair the injury or damage. 1971, c. 86, s. 17.

Equipment to alleviate effect of contaminant

**18.** When, in the opinion of the Director, based upon reasonable and probable grounds, it is necessary or advisable for the protection or conservation of the natural environment to do so, the Director may, by an order directed to any person, require that person to have on hand and available at all times such equipment and material as the order specifies to alleviate the effect of any contamination of the natural environment that may be caused or permitted by the person to whom the order is directed. 1971, c. 86, s. 18.

Order or approval binds successor or assignee

**19.**—(1) An order or approval of the Minister or the Director under this Act is binding upon the successor or assignee of the person to whom it is directed.

Index record

(2) The Ministry shall maintain an alphabetical index record of the names of all persons to whom orders or approvals are directed under this Act.

Removal of name from index record

(3) When an order or approval has expired or is revoked, the Ministry shall remove from the index record the name of the person to whom the order or approval is directed.

Search of index record

(4) The Ministry shall, upon the request of any person, make a search of the index record and inform the person making the request as to whether or not the name of a particular person appears in the index record and shall permit inspection of any order or approval relating to that person. 1971, c. 86, s. 19; 1972, c. 1, s. 1.

The Crown

**20.** The provisions of this Act are binding upon the Crown. 1971, c. 86, s. 20.

Subsisting regulations 1967, c. 2

**21.**—(1) Unless revoked or amended by the regulations made under this Act, the regulations made under *The Air Pollution Control Act, 1967* that are in force immediately before this Act comes into force, shall remain in force as regulations made under this Act.

Subsisting reports, etc.

(2) Every report, recommendation, approval, order and notice made or given under *The Air Pollution Control Act, 1967* shall be deemed to be made or given, as the case may be, under this Act.

Transfer of proceedings

(3) Where any proceeding has been commenced before the Air Pollution Control Advisory Board, such proceeding shall be



Continuation of proceedings

(4) The Board may continue any proceeding referred to in subsection 3 upon receipt of a transcript, and may require the preparation and delivery of such transcript, of the proceeding certified by the secretary of the Air Pollution Control Advisory Board, or may require the proceeding or any part thereof to be commenced *de novo*.

Powers and duties of Board where proceedings transferred

(5) For the purpose of a proceeding referred to in subsection 3, the Board has the like powers and duties as the Air Pollution Control Advisory Board. 1971, c. 86, s. 21.

## PART III

### MOTORS AND MOTOR VEHICLES

Interpretation

**22.** In this Part,

. . . . .

(*b*) "motor" means an internal combustion engine;

(*c*) "motor vehicle" means a vehicle that uses or incorporates a motor as a source of power. 1971, c. 86, s. 22; 1974, c. 20, s. 5.

Sale of motor vehicle that does not comply with regulations

**23.**—(1) No person shall sell, offer or expose for sale, a motor or motor vehicle that does not comply with the regulations.

Where system or device installed on motor vehicle

(2) Where a manufacturer installs on, attaches to or incorporates in any motor or motor vehicle, a system or device to prevent or lessen the emission of any contaminant, no person shall sell, offer or expose for sale, such motor or motor vehicle unless the motor or motor vehicle has such system or device so installed, attached or incorporated and such system or device, when the motor or motor vehicle is operating, complies with the regulations.

Repair or replacement of system or device

(3) Where a manufacturer installs on, attaches to or incorporates in any motor or motor vehicle, a system or device to prevent or lessen the emission of any contaminant, no person shall remove or cause or permit the removal of such system or device from such motor or motor vehicle, except for repair of such system or device or for replacement of such system or device by a system or device of the same type. 1973, c. 94, s. 2, *part*.

Operation of motor or motor vehicle

**24.**—(1) Except where necessary for test or repair purposes,

motor or motor vehicle or any class or type thereof that does not comply with the regulations.

Where system or device required

(2) Where a manufacturer installs on, attaches to or incorporates in any motor or motor vehicle a system or device to prevent or lessen the emission of any contaminant, the owner of such motor or motor vehicle shall not operate or cause or permit the operation of such motor or motor vehicle nor shall any person knowingly operate or cause or permit its operation unless such motor or motor vehicle has installed on, attached to or incorporated in it such system or device, and such system or device operates in accordance with the regulations when the motor or motor vehicle is in operation. 1973, c. 94, s. 2, *part*.

## PART IV

### WATER

**25.** REPEALED: 1974, c. 20, s. 6.

**26.** REPEALED: 1974, c. 20, s. 7.

Interpretation

**26***a*.—(1) In this section,

(*a*) "ice shelter" means any structure that is located on or over ice over any water for more than one day and that is or may be used for shelter, privacy or the storage or sale of any thing;

(*b*) "owner", when used in relation to an ice shelter, includes a person who has the right to use or occupy the ice shelter;

(*c*) "waste" means human excrement or any refuse that is discharged or deposited in or from an ice shelter.

Discharge or deposit of waste prohibited

(2) No person shall discharge or deposit or cause or permit to be discharged or deposited any waste upon or over the ice over any water except in accordance with the regulations.

Removal of ice shelter by provincial officer

(3) Except as provided in subsection 4, where an ice shelter is placed or allowed to remain on ice over any water in contravention of any provision of the regulations, a provincial officer may remove the ice shelter or cause it to be removed,

(*a*) where the provincial officer is able to determine the name and address of the owner, after service of notice upon the owner at least seven days before the date of the removal; or



(*b*) where the provincial officer is unable to determine the name and address of the owner, forthwith.

Idem, out of season

(4) Where an ice shelter is placed or allowed to remain on ice over any water beyond the dates prescribed by the regulations within which ice shelters may be placed, allowed to remain or used on or over ice over any water, a provincial officer may remove the ice shelter or cause it to be removed without serving prior notice upon the owner, but where the provincial officer is able to determine the name and address of the owner, notice of the removal shall be served upon the owner forthwith after the removal.

Where owner may retake possession of ice shelter

(5) Except where an ice shelter has been destroyed in the course of removal, the owner of an ice shelter that has been removed pursuant to subsection 3 or 4 may take possession of the ice shelter within thirty days of the removal or of service of the notice mentioned in subsection 3, whichever is later, or within thirty days after service of the notice mentioned in subsection 4, as the case requires, upon payment to the Treasurer of Ontario of the costs and charges for removal and storage of the ice shelter.

Where provincial officer may dispose of ice shelter

(6) Where the owner of an ice shelter that has been removed pursuant to subsection 3 or 4 does not take possession of the ice shelter pursuant to subsection 5,

(*a*) a provincial officer may dispose of the ice shelter without compensation therefor; and

(*b*) the owner is divested of ownership of the ice shelter and, where the ice shelter is disposed of to any person, such person shall acquire ownership of the ice shelter free from any right, title or interest of any other person.

Notice

(7) A notice under subsection 3 or 4 shall be in such form as the regulations may prescribe and shall state that the owner may take possession of the ice shelter pursuant to subsection 5 and that, if such owner does not so take possession, the ice shelter may be disposed of without compensation therefor and, where the ice shelter has been removed or caused to be removed pursuant to subsection 4 and has been damaged or destroyed in the course of the removal, the notice shall state the condition of the ice shelter.

Means of removal

(8) A provincial officer shall use due care in removing an ice shelter pursuant to subsection 3 or 4 but may use a means of removal that causes damage to or the destruction of the ice shelter if the use of the means of removal is necessary in order to carry out the removal.

(9) Where an ice shelter is removed pursuant to subsection 3 or 4 and the means of removal that is necessary in the circumstances results in damage to or the destruction of the ice shelter, the owner of the ice shelter is not entitled to compensation for the damage or destruction. 1973, c. 94, s. 4, *part*. Damage or destruction during removal

**26***b*. REPEALED: 1974, c. 20, s. 8.

**27.**—(1) Unless revoked or amended by the regulations made under this Act, Regulations to continue in force

(*a*) Regulation 644 of Revised Regulations of Ontario, 1970; and

(*b*) Regulation 646 of Revised Regulations of Ontario, 1970,

as amended from time to time shall remain in force as regulations made under this Act. 1971, c. 86, s. 27 (1).

(2) Every order, direction, requirement and permit given or made under section 26, 27*a*, 27*b* or 50 of *The Ontario Water Resources Commission Act* shall be deemed to be made or given, as the case may be, under this Act and every such order, direction, requirement and permit, except an order under section 26 of that Act, shall continue in force until revoked, suspended or varied by the Director. 1971, c. 86, s. 27 (2); 1974, c. 20, s. 9 (1). Subsisting orders, etc. R.S.O. 1960. c. 281

(3) The Director may by order revoke, suspend or vary an order, direction or requirement referred to in subsection 2, other than an order under section 26 of *The Ontario Water Resources Commission Act*, in order to, Powers of Director R.S.O. 1960. c. 281

(*a*) carry out the purposes of this Act; and

(*b*) require any person or source of contaminant to comply with the provisions of this Act and the regulations. 1971, c. 86, s. 27 (3).

(4) REPEALED: 1974, c. 20, s. 9 (2).

(5) In the case of an order under section 26 of *The Ontario Water Resources Commission Act*, the Director may apply to the court to continue, vary or terminate the order on such terms and conditions as the judge considers proper. 1971, c. 86, s. 27 (5). Director may apply to court to continue, etc., order R.S.O. 1960.



## PART V

### WASTE MANAGEMENT

Interpretation **28.** In this Part,

. . . . .

(*b*) "operator" means the person in occupation or having the charge, management, or control of a waste management system or a waste disposal site;

(*c*) "owner" includes,

(i) a person that is responsible for the establishment or operation of a waste management system or waste disposal site, or

(ii) the person that owns the land in or on which a waste disposal site is located;

(*ca*) "owner" in section 46*a*, means a person that is responsible for the operation of a well that is a waste disposal site;

(*d*) "waste" includes ashes, garbage, refuse, domestic waste, industrial waste, or municipal refuse and such other wastes as are designated in the regulations;

(*e*) "waste disposal site" means any land or land covered by water upon, into, in or through which, or building or structure in which, waste is deposited or processed and any machinery or equipment or operation required for the treatment or disposal of waste;

(*f*) "waste management system" means all facilities, equipment and operations for the complete management of waste, including the collection, handling, transportation, storage, processing and disposal thereof, and may include one or more waste disposal sites. 1971, c. 86, s. 28; 1972, c. 1, s. 69 (2); 1972, c. 106, s. 5; 1974, c. 20, s. 10.

Application of Part **29.** This Part does not apply to the storage or disposal by any person of his domestic wastes on his own property unless the Director is of the opinion, based upon reasonable and probable grounds, that such storage or disposal is or is likely to create a nuisance, or to any sewage or other works to which *The Ontario Water Resources Act* or the regulations thereunder apply. 1971, c. 86, s. 29; 1972, c. 106, s. 6. R.S.O. 1970. c. 332

Certificate of approval

**30.** No waste management system that is in operation or waste disposal site that is in use when this Act comes into force shall be operated or used,

(*a*) after a certificate of approval has been refused, or

(*b*) where a certificate of approval or provisional certificate of approval has been issued except in accordance with the terms and conditions of such certificate 1971, c. 86, s. 30

New systems, sites and extensions

**31.** No person shall use, operate, establish, alter, enlarge or extend

(*a*) a waste management system; or

(*b*) a waste disposal site,

unless a certificate of approval or provisional certificate of approval therefor has been issued by the Director and except in accordance with any conditions set out in such certificate. 1971, c. 86, s. 31

No money by-law without certificate

**32.** No by-law for raising money to finance any work under section 31 shall be passed by the council of a municipality until a certificate of approval or a provisional certificate of approval has been issued therefor 1971, c. 86, s. 32.

Relief from assent of electors

**33.** Where the Minister reports in writing to the clerk of a municipality that he is of the opinion that it is necessary in the public interest that waste be collected or a waste management system or any part thereof be established, maintained, operated, improved, extended, enlarged, altered, repaired or replaced, it is not necessary to obtain the assent of the electors to any by-law for incurring a debt for any such purpose, and the municipality shall forthwith do every possible act and thing in its power to implement the report of the Minister within the time specified. 1971, c. 86, s. 33.

When public hearing required

**33*a*.**—(1) Where the Director receives an application for a certificate of approval for the use, operation, establishment, alteration, enlargement or extension of a waste disposal site for the disposal of hauled liquid industrial waste or hazardous waste as designated in the regulations or any other waste that the Director ascertains, having regard to the nature and quantity of the waste, is the equivalent of the domestic waste of not less than 1,500 persons, the Director shall, before issuing or refusing to issue the certificate of approval, hold a public hearing. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11.

Notice of hearing

(2) At least fifteen days notice of the hearing shall be given to the clerk of the municipality in or into which it is proposed to use, operate, establish, alter, enlarge or extend the waste disposal site and to the owners or occupants of the lands adjoining the land upon or in which the waste disposal site is or is intended to be located and to such other persons and in such manner as the Director may direct and such notice shall be published once a week for three consecutive weeks in a newspaper having general circulation in the locality where the waste disposal site is or is intended to be located provided there is a newspaper having general circulation in the locality and published at least once a week 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11.

Where emergency situation exists

**33*b*.** Notwithstanding the provisions of section 33*a*, where, in the opinion of the Director, an emergency situation exists by reason of,

(*a*) danger to the health or safety of any person;

(*b*) impairment or immediate risk of impairment of the quality of the natural environment for any use that can be made of it; or

(*c*) injury or damage or immediate risk of injury or damage to any property or to any plant or animal life,

and the emergency situation will be alleviated by the use, operation, establishment, alteration, enlargement or extension of a waste disposal site, the Director may issue a certificate of approval therefor without holding a public hearing. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11.

Where public hearing may be held

**33*c*.**—(1) Where the Director receives an application for a certificate of approval for the use, operation, establishment, alteration, extension or enlargement of,

(*a*) a waste management system that does not include a waste disposal site referred to in section 33*a*; or

(*b*) a waste disposal site other than a waste disposal site referred to in section 33*a*,

the Director may, before issuing or refusing to issue the certificate of approval, hold a public hearing. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11.

Notice of hearing

(2) Where a hearing is held under subsection 1, at least fifteen days notice shall be given to the clerk of the munici-

pality in or into which it is proposed to use, operate, establish, alter, extend or enlarge the waste management system or waste disposal site and to the owners or occupants of the lands adjoining any land upon or in which the waste disposal site is located or is intended to be located and to such other persons and in such manner as the Director may direct. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11.

Director may require Environmental Assessment Board to hold public hearing

**33*d*.**—(1) Where the Director is required or permitted to hold a hearing under this Act, he may by a notice in writing, and on such terms and conditions as he may direct, require the Environmental Assessment Board to hold the hearing. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11; 1975, c. 70, s. 2.

When Environmental Assessment Board to hold public hearing

(2) Upon receipt of notice from the Director, the Environmental Assessment Board shall hold a public hearing with respect to the subject-matter of the notice and shall report thereon to the Director. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11; 1975, c. 70, s. 2.

Procedure

1975, c. 69

(3) Except where otherwise provided in this Act and notwithstanding the requirement that a hearing be a public hearing, the provisions of Part III of *The Environmental Assessment Act, 1975* apply where a hearing is required to be held under subsection 1 by the Environmental Assessment Board. 1975, c. 70, s. 3 (1).

Application of 1975, c. 69

(3*a*) Subsections 12 and 14 to 20 of section 18 and sections 20 and 24 of *The Environmental Assessment Act, 1975* do not apply where a hearing is required to be held under subsection 1 by the Environmental Assessment Board.

Hearings

(3*b*) Where a hearing is required to be held under subsection 1 by the Environmental Assessment Board,

(*a*) the Board shall determine its own practice and procedure in relation to hearings and may, subject to the approval of the Lieutenant Governor in Council, make rules governing such practice and procedure and the exercise of its powers in relation thereto and prescribe such forms as are considered advisable;

(*b*) the member or members conducting a hearing shall prepare and submit to the Board a draft report of the Board referred to in clause *e* and, after notice of the purpose of the meeting has been given to all members of the Board, the Board shall consider the draft report at a meeting of the Board called for the purpose of preparing the report and the



(i) adopt the draft report,

(ii) adopt the draft report with such changes as the Board considers advisable, or

(iii) reject the draft report and take such other action for the purpose of preparing the report, including the holding of additional hearings, as the Board considers advisable;

(*c*) a hearing by the Board is for the purpose of making a report containing information and advice and the report is not in any way legally binding in any decision or determination that may be made;

(*d*) for the purposes of the exercise of any power or authority or the discharge of any duty by the Board or any member or members thereof conducting a hearing, the Board, or such member or members, has or have the powers of a commission under Part II of *The Public Inquiries Act, 1971*, which Part applies to the exercise of such power or authority and the discharge of such duty as if it were an inquiry under that Act; and

1971, c. 49

(*e*) the report of the Board shall contain a summary of the information presented and the views expressed at the hearing and its recommendations in respect of the subject-matter of the hearing, together with its reasons therefor. 1975, c. 70, s. 3 (2).

Director to consider report of Environmental Assessment Board

(4) Where the Director requires the Environmental Assessment Board to hold a public hearing, the Director shall not issue or refuse to issue a certificate of approval until he has received and considered the report of the Environmental Assessment Board. 1972, c. 106, s. 7, *part*; 1974, c. 20, s. 11; 1975, c. 70, s. 2.

**33*e*.** REPEALED: 1974, c. 20, s. 12

Condition precedent to issue of certificate

**34.** No certificate of approval shall be issued to an applicant other than a municipality unless the applicant has,

(*a*) deposited a sum of money; or

(*b*) furnished a surety bond; or

in such amount and upon such conditions as the regulations prescribe to assure satisfactory maintenance of the waste management system or the waste disposal site or the removal of waste from the site if the Director considers such removal necessary. 1971, c. 86, s. 34.

Hearing as to by-law

**35.**—(1) Where a by-law of a municipality affects the location or operation of a proposed waste disposal site, the Minister, upon the application of the person applying for a certificate of approval for the waste disposal site, may, by a notice in writing, and on such terms and conditions as he may direct, require the Environmental Assessment Board to hold a public hearing to consider whether or not the by-law should apply to the proposed waste disposal site. 1972, c. 106, s. 8, *part*; 1975, c. 70, s. 2.

When Environmental Assessment Board to hold public hearing

(2) Upon receipt of notice from the Minister, the Environmental Assessment Board shall hold a public hearing with respect to the subject-matter of the notice and shall report thereon to the Minister. 1972, c. 106, s. 8, *part*; 1975, c. 70, s. 2.

Procedure

(3) Except where otherwise provided in this Act and notwithstanding the requirement that a hearing be a public hearing, the provisions of Part III of *The Environmental Assessment Act, 1975* apply where a hearing is required to be held under subsection 1 by the Environmental Assessment Board. 1975, c. 70, s. 4 (1).

1975, c. 69

Application of s. 33*d* (3*a*, 3*b*)

(3*a*) The provisions of subsections 3*a* and 3*b* of section 33*d* apply where a hearing is required to be held under subsection 1 by the Environmental Assessment Board. 1975, c. 70, s. 4 (2).

Parties and procedure

(4) Where the Minister requires a public hearing under subsection 1,

(*a*) the applicant, the municipality and any other person specified by the Environmental Assessment Board shall be given notice of the hearing in such manner as the Environmental Assessment Board directs; and

(*b*) the Environmental Assessment Board shall hold the public hearing within the municipality within which it is proposed to locate the waste disposal site. 1972, c. 106, s. 8, *part*; 1975, c. 70, s. 2.

Order

(5) The Minister, after receiving the report of the Environmental Assessment Board, may order that the by-law



referred to in subsection 1 does not apply to the proposed waste disposal site and the by-law shall thereupon be deemed not to apply thereto. 1972, c. 106, s. 8, *part*; 1975, c. 70, s. 2.

Return of deposit

**36.** The deposit mentioned in clause *a* of section 34 may be returned to the depositor upon such terms and conditions as the regulations prescribe. 1971, c. 86, s. 36.

**37.** REPEALED: 1972, c. 106, s. 9.

Information to be furnished

**38.** An applicant for a certificate of approval shall submit to the Director plans and specifications of the work to be undertaken together with such other information as the Director may require. 1971, c. 86, s. 38.

Powers of Director

**39.**—(1) The Director after considering an application for a certificate of approval, may issue a certificate of approval or provisional certificate of approval. 1971, c. 86, s. 39 (1); 1972, c. 106, s. 10 (1); 1974, c. 20, s. 13 (1).

Powers of Director

(2) The Director may,

(*a*) refuse to issue or renew;

(*b*) suspend or revoke; or

(*c*) impose, alter or revoke terms and conditions in,

a certificate of approval or provisional certificate of approval where,

(*d*) the waste management system or the waste disposal site does not comply with this Act or the regulations; or

(*e*) he considers, upon probable grounds, that the use, establishment, operation, alteration, enlargement or extension of the waste management system or the waste disposal site may create a nuisance, is not in the public interest or may result in a hazard to the health or safety of any person. 1972, c. 106, s. 10 (2); 1974, c. 20, s. 13 (2).

Prohibition as to deposit of waste

**40.** No person shall deposit waste upon, in, into or through any land or land covered by water or in any building that is not a waste disposal site for which a certificate of approval or a provisional certificate of approval has been issued and except in accordance with the terms and conditions of such certificate. 1971, c. 86, s. 40; 1972, c. 106, s. 11.

Prohibition as to use of facilities, etc.

**41.** No person shall use any facilities or equipment for the storage, handling, treatment, collection, transportation, processing or disposal of waste that is not part of a waste management system for which a certificate of approval or a provisional certificate of approval has been issued and except in accordance with the terms and conditions of such certificate. 1971, c. 86, s. 41.

Order for removal of waste

**42.**—(1) Where waste has been deposited upon, in, into or through any land or land covered by water or in any building that has not been approved as a waste disposal site, the Director may order the occupant or the person having charge and control of such land or building to remove the waste and to restore the site to a condition satisfactory to the Director. 1971, c. 86, s. 42 (1); 1972, c. 106, s. 12 (1); 1974, c. 20, s. 14.

Action upon failure to comply with order

(2) Where a person to whom an order is directed under subsection 1 fails to comply with the order, the Director may cause the necessary work to be done and charge such person with the cost thereof, which may be recovered with costs in any court of competent jurisdiction. 1971, c. 86, s. 42 (2); 1972, c. 106, s. 12 (2); 1974, c. 20, s. 14.

Order by Director

**43.** Where a waste management system or a waste disposal site is not in conformity with this Part or the regulations, the Director may order the owner to take such action as he may require to bring the system or the site into conformity with this Part or the regulations within the time specified in the order. 1971, c. 86, s. 43; 1972, c. 106, s. 13; 1974, c. 20, s. 14.

Action upon non-compliance with order

**44.** Where an owner fails to comply with an order under section 43, the Director may cause the necessary work to be done and charge the owner with the cost thereof which, in the case of an owner other than a municipality, may be deducted from the deposit mentioned in section 34, or may be recovered with costs in any court of competent jurisdiction. 1971, c. 86, s. 44; 1972, c. 106, s. 14; 1974, c. 20, s. 14.

Right to compensation

**45.**—(1) Within thirty days after the receipt of notice that the Director has refused to renew or has suspended or revoked a certificate of approval, any owner who has suffered pecuniary loss as a result of such decision affecting his waste disposal site or waste management system may apply to the Director for compensation for such loss where such owner,

(*a*) has received a certificate of approval for the waste disposal site or waste management system affected by the Director's decision; and



(*b*) since receiving such certificate of approval, has strictly complied with this Act and the regulations. 1971, c. 86, s. 45 (1); 1972, c. 106, s. 15 (1); 1974, c. 20, s. 14.

Notice of decision and right to appeal

(2) A notice of the decision of the Director in disposing of the application and a notice stating the right to an appeal under this section shall be served on the owner either personally or by registered mail addressed to the owner at his last known address. 1971, c. 86, s. 45 (2); 1972, c. 106, s. 15 (2); 1974, c. 20, s. 14.

Right to appeal

(3) Within fifteen days after receipt of the notices referred to in subsection 2, the owner may by written notice received by the Ministry and the Board, appeal the amount of compensation, if any, to the Board, and such appeal shall be a hearing *de novo* and the Board may dismiss the appeal or alter the decision of the Director establishing the amount of the compensation, if any, and the decision of the Board shall be final. 1971, c. 86, s. 45 (3); 1972, c. 1, s. 1; 1972, c. 106, s. 15 (3); 1974, c. 20, s. 14.

Payment of compensation

(4) Where the Director or the Board, as the case may be, has established the amount of the compensation, if any, the Minister shall certify the amount thereof to the Treasurer of Ontario and the Treasurer shall pay such amount to the person entitled thereto out of the Consolidated Revenue Fund. 1971, c. 86, s. 45 (4); 1972, c. 106, s. 15 (4); 1974, c. 20, s. 14.

Former disposal sites

**46.** No use shall be made of land or land covered by water which has been used for the disposal of waste within a period of twenty-five years from the year in which such land ceased to be so used unless the approval of the Minister for the proposed use has been given. 1971, c. 86, s. 46.

Security Fund

**46*a*.**—(1) There shall be an account in the Consolidated Revenue Fund to be known as "The Waste Well Disposal Security Fund", referred to in this section as the "Fund", into which shall be paid the prescribed fees received under this Act.

Interest

(2) Interest shall be credited to the Fund out of the Consolidated Revenue Fund at a rate to be determined from time to time by the Lieutenant Governor in Council, and such interest shall be made up at the close of each fiscal year upon the balance in the Fund at the end of the previous calendar year.

Owner of waste disposal well to pay fee

(3) The owner of every well that is a waste disposal site shall pay a fee calculated upon the amount and type of waste disposed of in the well.

Fee paid to Treasurer

(4) The fee shall be paid to the Treasurer of Ontario for payment into the Fund.

Calculation and payment of fee

(5) The fee shall be at the rate or rates prescribed by the regulations, shall be paid upon the amount and type of waste disposed of in the well in each calendar year and shall be paid in advance in each calendar year. 1972, c. 106, s. 16, *part*.

Estimate by Director

(6) The Director shall estimate the amount of the fee for each calendar year based upon the amount and type of waste disposed of in the well in the previous calendar year and where waste was not disposed of in the well in the previous calendar year the Director shall estimate the fee on the basis of the amount and type of waste that in his opinion will be disposed of in the well in the current calendar year and may revise such estimate at any time before payment of the estimated fee as required by subsection 7. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Payment of estimated fee

(7) The estimated fee for each calendar year shall be paid within thirty days after receipt of the notice or revised notice by the owner of the well of the amount of the fee estimated by the Director. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Adjustment of fee

(8) At the end of each calendar year, the Director shall calculate the amount of the fee for the year and,

(*a*) where the fee estimated and paid for the year is less than the calculated fee, the Director shall add the difference to the estimated fee for the next calendar year or may, by a notice in writing, require the owner of the well to pay the difference forthwith to the Treasurer of Ontario; and

(*b*) where the fee estimated and paid for the year is greater than the calculated fee, the Director shall deduct the difference from the estimated fee for the next calendar year or may certify to the Treasurer of Ontario the amount of such difference and the Treasurer shall pay such amount to the owner of the well. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Person suffering damage to be compensated

(9) Where the water in any well, lake, river, pond, spring, stream, reservoir or other water or watercourse that any person takes for ordinary household purposes or for the watering



of live stock, poultry, home gardens or lawns, or for the watering or irrigation of crops grown for sale, is rendered unfit for such use by reason of the operation of any well that is a waste disposal site, the person is entitled to have compensation paid to him out of the Fund so far as the Fund is sufficient for that purpose, having regard to any other charges thereon, if he gives notice to the Director forthwith after becoming aware that the water has been rendered unfit and makes a claim therefor under subsection 10 within six months, or such longer period of time as may be determined by the Director, from the date that the Director received the notice that the water has been rendered unfit. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Claim for compensation

(10) A person claiming to be entitled to compensation out of the Fund shall make application therefor to the Director in writing, setting out therein his full name and address and the particulars of his claim and shall furnish to the Director such additional information with respect to the subject-matter of the claim that the Director may require and that is within his knowledge. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Determination by Director

(11) The Director shall investigate or cause an investigation to be made and shall determine whether there are reasonable grounds for believing that the water referred to in subsection 9 has been rendered unfit for any of the purposes set out therein and for which it was used and that it has been rendered unfit by the disposal of waste in any well that is a waste disposal site and in such case shall determine the amount of the claimant's reasonable and necessary expenses incurred in obtaining an alternate supply of water substantially equivalent in quantity and quality to such water. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Director's certificate

(12) The Director shall set out his determination in a certificate together with written reasons therefor and send a copy thereof to the claimant by registered mail at the address set out in the application. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

When certificate final

(13) The certificate of the Director is final at the end of thirty days from the date of mailing it to the claimant unless notice of appeal is served within that time. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Appeal

(14) The claimant may appeal to the Board at any time before the certificate of the Director becomes final

and the procedure thereon shall be the same as upon an appeal from an order of the Director under Part X. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Payment out of Fund

(15) Where the Director has sent his certificate by registered mail to the claimant and the time for any appeal has expired or, where an appeal is taken, it is disposed of, and it is finally determined that the claimant is entitled to payment of compensation out of the Fund, the Director shall certify to the Treasurer of Ontario the sum found to be payable and the Treasurer shall pay such sum to the claimant out of the Fund. 1972, c. 106, s. 16, *part*; 1974, c. 20, s. 15.

Recovery of money

(16) Where a claimant who has received any payment out of the Fund recovers any moneys, directly or indirectly, from the owner of a well that is a waste disposal site, in respect of the expenses for which the payment was made out of the Fund, the claimant shall repay to the Treasurer of Ontario for credit to the Fund an amount equal to the payment out of the Fund or the moneys received from the owner of the well, whichever is the lesser, and such amount may be recovered with costs in any court of competent jurisdiction as a debt due to the Crown.

Recovery of fees owing

(17) Any fee or any difference between the estimated fee and the calculated fee referred to in clause *a* of subsection 8 that is payable under this section may be recovered in any court of competent jurisdiction as a debt due to the Crown. 1972, c. 106, s. 16, *part*.

Offences

**47.** Every person or municipality that contravenes any provision of this Part or the regulations or fails to comply with an order made under section 42 or 43 or fails to comply with any term or condition of a certificate of approval or provisional certificate of approval is guilty of an offence and on summary conviction is liable to a fine of not more than $2,000 for every day or part thereof upon which such offence occurs or continues. 1971, c. 86, s. 47; 1972, c. 106, s. 17.

Existing applications, certificates, etc.

R.S.O. 1970, c. 491

**48.**—(1) Every application for a certificate of approval, every refusal of a certificate of approval and every certificate of approval or provisional certificate of approval issued under *The Waste Management Act* shall be deemed to be made, refused or issued, as the case may be, under this Act.

Transfer of proceedings

(2) Where any proceeding has been commenced before the Advisory Board or the Appeal Board under *The Waste Management Act*, such proceeding shall be transferred to the Board under this Act.



Subsisting notices, etc.

R.S.O. 1970, c. 491

(3) Every notice, report, recommendation, decision and order made or given under *The Waste Management Act* shall be deemed to be made or given, as the case may be, under this Act.

Subsisting regulations

(4) Every regulation made under *The Waste Management Act* that is in force immediately before this Act comes into force shall remain in force until revoked by the regulations.

Continuation of proceedings

(5) The Board may continue any proceeding referred to in subsection 2 upon receipt of a transcript, and may require the preparation and delivery of such transcript, of the proceeding certified by the chairman or vice-chairman of the Advisory Board or the Appeal Board under *The Waste Management Act*, or may require the proceeding or any part thereof to be commenced *de novo*.

Powers and duties of Board when proceedings transferred

(6) For the purpose of a proceeding referred to in subsection 2, the Board has the like powers and duties as the Advisory Board or the Appeal Board, as the case may be, under *The Waste Management Act*. 1971, c. 86, s. 48.

Waste disposal in wells

1971, c. 94

(7) An approval of the disposal of waste or mineral water as waste in an underground formation given or made under *The Petroleum Resources Act, 1971*, or any predecessor thereof, or the regulations thereunder shall be deemed to be a certificate of approval under this Part and shall continue in force according to its terms and the Director may amend or revoke the approval in accordance with this Act and the regulations thereunder. 1972, c. 1, s. 69 (3).

## PART VI

### ABANDONED MOTOR VEHICLES

Interpretation

**49.** In this Part,

(*a*) "abandoned motor vehicle" means a vehicle that has been left unattended without lawful authority and that appears to an officer, by reason of its age, appearance, mechanical condition or lack of licence plates, to be abandoned;

(*b*) "abandoned motor vehicle site" means,

(i) a waste disposal site,

A. that is classified by the regulations as a derelict motor vehicle site,

B. that is not exempt under the regulations relating to Part V or Part VI, and

C. for which a certificate of approval or a provisional certificate of approval has been issued pursuant to Part V, or

(ii) any place that is approved in writing by the Director for the purpose of receiving and storing abandoned motor vehicles;

. . . . .

(*d*) "officer" means a provincial officer or a member of the Ontario Provincial Police Force or the police force in the area where an abandoned motor vehicle is found. 1973, c. 94, s. 5, *part*; 1974, c. 20, s. 16.

Removal of abandoned motor vehicle

**50.** An officer may remove or cause to be removed an abandoned motor vehicle to an abandoned motor vehicle site. 1973, c. 94, s. 5, *part*.

Notice to owner

**51.** Where an officer has removed an abandoned motor vehicle to an abandoned motor vehicle site, the officer shall forthwith serve notice in writing of the removal on the owner of the vehicle at the latest address shown on the records of the Ministry of Transportation and Communications when the officer causes the records to be examined or on the records, if any, on or in the vehicle unless the name and address of the owner cannot be determined. 1973, c. 94, s. 5, *part*.

Contents of notice

**52.** A notice under section 51 shall,

(*a*) contain a description of,

(i) the abandoned motor vehicle,

(ii) the place from which and the abandoned motor vehicle site to which the abandoned motor vehicle was removed,

(iii) the date of removal, and

(iv) the identification of the officer who removed or caused the removal of the abandoned motor vehicle;

(*b*) state,

(i) that if the abandoned motor vehicle is not claimed by the owner or any other person having a right or interest in the vehicle within thirty days from the date of service of the notice, the abandoned motor vehicle will be sold or



otherwise disposed of by the person having the charge and control of the abandoned motor vehicle site, and

(ii) that the owner shall forthwith upon receipt of the notice notify any person having a right or interest in the abandoned motor vehicle, of whom he has knowledge, of the receipt and contents of the notice of removal. 1973, c. 94, s. 5, *part*.

Where owner may retake possession

**53.** The owner or any person having a right or interest in an abandoned motor vehicle may take possession of the abandoned motor vehicle within thirty days after the date of service of the notice referred to in section 51 or, where notice of removal has not been served, within thirty days after the date of removal of the vehicle on payment to the person having the charge and control of the abandoned motor vehicle site of all costs and charges, if any, for removal of the vehicle to and all costs and charges, if any, for storage of the vehicle at the abandoned motor vehicle site. 1973, c. 94, s. 5, *part*.

Disposal of vehicle

**54.** Where an abandoned motor vehicle has not been claimed by the owner or any person having a right or interest in the abandoned motor vehicle pursuant to section 53, the person having the charge and control of the abandoned motor vehicle site shall sell or otherwise dispose of the vehicle and shall apply the proceeds of the sale or other disposition firstly, in payment of all costs and charges, if any, for removal of the vehicle to the abandoned motor vehicle site, and secondly, in payment of all costs and charges, if any, for storage of the vehicle at the site, and any surplus shall be paid to the Treasurer of Ontario. 1973, c. 94, s. 5, *part*.

**55.** REPEALED: 1974, c. 20, s. 17.

Ownership

**55*a*.** Where an abandoned motor vehicle is sold or otherwise disposed of pursuant to section 54, the owner or any person having a right or interest in the vehicle is divested of the ownership of or other right or interest in the vehicle and the person who has acquired the vehicle on a disposition pursuant to section 54 acquires the ownership of the vehicle free from any right or interest of any other person in the vehicle. 1973, c. 94, s. 5, *part*.

Compensation

**55*b*.** Where an owner or other person having a right or interest in an abandoned motor vehicle that is disposed of pursuant to section 54 does not, acting in good faith through any cause beyond his control, receive notice of

removal of the vehicle or does not otherwise acquire knowledge of such removal before the disposition and such owner or other person suffers loss as a result of such disposition, such owner or other person may apply to the Director for compensation upon giving notice to the Director forthwith after becoming aware of the disposition and upon applying therefor pursuant to section 55*c* within six months from the date the notice of removal, if any, is served or, where no notice of removal is served, from the date of removal of the vehicle to an abandoned motor vehicle site. 1973, c. 94, s. 5, *part*.

Claim for compensation

**55*c***. A person applying for compensation pursuant to section 55*b* shall make application therefor to the Director in writing, setting out therein his full name and address and the particulars of his claim and shall furnish to the Director such additional information with respect to the subject-matter of the claim that the Director may require and that is within his knowledge. 1973, c. 94, s. 5, *part*.

Director's certificate

**55*d***. The Director may award compensation under section 55*b* in such amount and on such terms and conditions as appear just under the circumstances and shall set out his award in a certificate together with written reasons therefor and send a copy thereof to the applicant by registered mail at the address set out in the application. 1973, c. 94, s. 5, *part*.

When certificate final

**55*e***. The certificate of the Director is final at the end of thirty days from the date of mailing it to the applicant unless notice of appeal is served within that time. 1973, c. 94, s. 5, *part*.

Appeal

**55*f***. The applicant may appeal to the Board at any time before the certificate of the Director becomes final and the procedure thereon shall be the same as upon an appeal from an order of the Director under Part X. 1973, c. 94, s. 5, *part*.

Payment

**55*g***. Where the Director has sent his certificate by registered mail to the applicant and the time for any appeal has expired or, where an appeal is taken, it is disposed of, and it is finally determined that the applicant is entitled to payment of compensation, the Director shall certify to the Treasurer of Ontario the sum found to be payable and the Treasurer shall pay such sum to the applicant out of the Consolidated Revenue Fund. 1973, c. 94, s. 5, *part*.

Recovery of moneys

**55*h***. Where an applicant who has received any payment out of the Consolidated Revenue Fund pursuant to section 55*g* recovers any moneys, directly or indirectly, from any person in respect of the loss for which the payment was made out of the Consolidated Revenue Fund, the applicant shall repay to the Treasurer of Ontario for credit to the Consolidated



Revenue Fund an amount equal to the payment out of the Consolidated Revenue Fund or the moneys received from such person, whichever is the lesser, and such amount may be recovered with costs in any court of competent jurisdiction as a debt due to the Crown. 1973, c. 94, s. 5, *part*.

## PART VII

### SEWAGE SYSTEMS

Interpretation

**56.** In this Part,

. . . . .

(*c*) "sewage system" means,

(i) a cesspool, a septic tank system, a leaching pit, a leaching bed, a privy, a privy-vault, a holding tank other than a holding tank to which regulations made under clause *n* or *o* of subsection 1 of section 62 of *The Ontario Water Resources Act* apply, a toilet other than a toilet to which regulations made under clause *f* of subsection 1 of section 62 of *The Ontario Water Resources Act* apply and any other sewage works referred to in clause *a* or *c* of subsection 6 of section 42 of *The Ontario Water Resources Act* or any part of any of them, or

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(ii) works, installations, equipment and operations for the collection, handling, treatment, transportation, storage, processing and disposal of hauled sewage as designated in the regulations, and includes any land used in connection therewith, but does not include plumbing as defined in the regulations under *The Ontario Water Resources Act*. 1972, c. 106, s. 23, *part*; 1974, c. 20, s. 18.

Exception

**56*a***. Notwithstanding any provision of *The Ontario Water Resources Act*, a sewage system that is subject to the provisions of this Part is not subject to the provisions of *The Ontario Water Resources Act*. 1972, c. 106, s. 23, *part*.

**56*b***. REPEALED: 1974, c. 20, s. 19.

Prohibition

**57.** No person shall construct, install, establish, enlarge, extend or alter,

(*a*) any building or structure in connection with which a sewage system will be used if the use of the building or structure so constructed, installed, established, enlarged, extended or altered will or is likely to affect the operation or effectiveness of the sewage system; or

(*b*) any sewage system,

unless a certificate of approval for the construction, installation, establishment, enlargement, extension or alteration of the sewage system has first been issued by the Director. 1972, c. 106, s. 23, *part*.

Application

**58.** An applicant for a certificate of approval under this Part shall submit to the Director plans and specifications of any work to be undertaken upon issuance of the certificate of approval and such other information as the Director may require and, subject to section 59, the Director may issue a certificate of approval. 1972, c. 106, s. 23, *part*.

Powers of Director

**59.** The Director may

(*a*) refuse to issue;

(*b*) suspend or revoke; or

(*c*) impose, alter or revoke terms and conditions in,

a certificate of approval where,

(*d*) the sewage system or the proposed establishment, construction, operation, installation, enlargement, extension or alteration of the sewage system does not comply with the provisions of this Act or the regulations; or

(*e*) he considers, upon probable grounds, that the construction, establishment, operation, installation, enlargement, extension or alteration of the sewage system may create a nuisance, is not in the public interest or may result in a hazard to the health or safety of any person or impairment of the quality of the natural environment for any use that can be made of it. 1972, c. 106, s. 23, *part*.

Permit

**59*a*.**—(1) No person shall use or operate a sewage system or any part thereof that has been constructed, installed, established, enlarged, extended or altered after the date this



Part comes into force in an area to which this Part is made applicable unless a permit for its use or operation has been issued by the Director and, subject to subsection 3, the Director may issue a permit.

Inspection

(2) Every person who has constructed, installed, established, enlarged, extended or altered a sewage system or any part thereof shall, until a permit under subsection 1 is issued, keep open for inspection or make available for inspection by a provincial officer the sewage system or the part thereof that was constructed, installed, established, enlarged, extended or altered.

Where permit not to be issued

(3) The Director shall not issue a permit under subsection 1 where the construction, installation, establishment, enlargement, extension or alteration of the sewage system or part thereof does not comply with a certificate of approval issued therefor under section 57 or contravenes a provision of this Act or the regulations or, where a certificate of approval required under section 57 has not been issued, he considers, upon probable grounds, that the use or operation of the sewage system or part thereof may create a nuisance, is not in the public interest or may result in a hazard to the health or safety of any person until the construction, installation, establishment, enlargement, extension or alteration is inspected by a provincial officer and altered as the Director may require in order that the sewage system or part thereof will not, in the opinion of the Director, create a nuisance, be contrary to the public interest or result in a hazard to the health or safety of any person. 1972, c. 106, s. 23, *part*.

Where Director may make order

**60.**—(1) Where any person,

(*a*) constructs, installs, establishes, enlarges, extends or alters a building or structure referred to in section 57 or a sewage system and a certificate of approval required under section 57 has not been issued;

(*b*) constructs, installs, establishes, enlarges, extends or alters a building or structure referred to in section 57 or a sewage system and does not comply with any of the terms and conditions in a certificate of approval issued under section 57 in respect thereof;

(*c*) does not construct, operate, clean, empty, disinfect or maintain a sewage system in compliance with the standards prescribed in the regulations; or

(*d*) uses or operates a sewage system for which a permit required under section 59*a* has not been issued,

the Director may make such order as he considers necessary in order to lessen or prevent the deposit, addition, emission or discharge of any contaminant into the natural environment. 1972, c. 106, s. 24; 1974, c. 20, s. 20.

Action upon non-compliance with order

(2) When a person to whom an order is directed under subsection 1 fails to comply with the order, the Minister may cause the necessary work to be done and charge such person with the cost thereof which may be recovered with costs in any court of competent jurisdiction. 1971, c. 86, s. 60 (2).

Where licence required

**61.**—(1) No person shall engage in the business of,

(*a*) constructing on site, installing, repairing, servicing, cleaning or emptying sewage systems; or

(*b*) storing, hauling or disposing of sewage from a sewage system,

without having first obtained a licence issued by the Director.

Application for licence

(2) Subject to subsection 3, an applicant for a licence who,

(*a*) pays the prescribed fee; and

(*b*) meets the requirements of the regulations,

is entitled to be issued such licence by the Director.

Powers of Director

(3) The Director may,

(*a*) refuse to issue or renew a licence; or

(*b*) suspend or revoke a licence,

where the licensee is in contravention of this Act or the regulations or the licensee is in breach of any term or condition of the licence or, where the Director is of the opinion that,

(*c*) the applicant or licensee or, where the applicant or licensee is a corporation, its officers or directors, is or are not competent to carry on the business that would be or is authorized by the licence;

(*d*) the past conduct of the applicant or licensee or, where the applicant or licensee is a corporation, of its officers or directors, affords reasonable grounds for belief that the business that would be or is authorized by the licence will not be carried on in accordance with law;



(*e*) the applicant or licensee does not possess or will not have available all premises, facilities and equipment necessary to carry on the business authorized by the licence in accordance with this Act and the regulations; or

(*f*) the applicant or licensee is not in a position to observe or carry out the provisions of this Act and the regulations.

Idem

(4) The Director may impose, alter or revoke terms and conditions in a licence in order,

(*a*) to restrict the area in which a licensee may operate; and

(*b*) to control the method or place or both of storing, hauling, collecting, transferring and disposing of sewage from a sewage system.

Expiration of licence

(5) A licence expires twelve months after the date of its issue or renewal.

Not transferable

(6) A licence is not transferable. 1972, c. 106, s. 25.

Interpretation

**61***a*.—(1) In this section, "municipality" means the corporation of a metropolitan area, regional area or a district area, a local municipality which is not included in a metropolitan, regional or district area, a county, a local board of a health unit or a local board of health.

Minister may enter into agreement with municipality

(2) A municipality and Her Majesty the Queen in right of Ontario, represented by the Minister, may enter into an agreement applicable to the whole or any part or parts of the area under the jurisdiction of the municipality providing for,

(*a*) the issuance by the municipality of certificates of approval pursuant to this Part;

(*b*) the issuance by the municipality of permits pursuant to this Part;

(*c*) the making of orders by the municipality pursuant to this Part;

(*d*) the carrying out of inspections respecting sewage systems under this Part that may be necessary or expedient,

(i) for the exercise by the municipality of such powers or duties under this Part as may be specified in the agreement, and

(ii) with respect to such applications under *The Planning Act* for consents under section 29 of that Act or for approvals of plans of subdivision under section 33 of that Act as may be specified in the agreement; or

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(*e*) the collection and payment or remittance of any fees payable under this Act or the regulations for any inspections that are carried out by the municipality under the agreement,

and any matter incidental thereto, and a municipality that has entered into such an agreement has all such powers as may be necessary to carry out the provisions thereof. 1973, c. 94, s. 6, *part*.

Where municipal officer may act

(3) Where the Minister and a municipality have entered into an agreement pursuant to this section, the municipality or the officer or employee of the municipality designated in the agreement shall be deemed to be the Director for the purpose of carrying out the provisions of this Act and the regulations applicable to the matters dealt with in the agreement. 1973, c. 94, s. 6, *part*; 1974, c. 20, s. 21.

Where fee payable

**61***b*.—(1) Subject to subsection 2, where an application is made for a consent under section 29 of *The Planning Act* or for approval of a plan of subdivision under section 33 of *The Planning Act*, the applicant shall pay a fee at the rate or rates prescribed by the regulations to the Treasurer of Ontario or, where an agreement is made under section 61*a*, to the person specified in the agreement,

(*a*) in the case of an application under section 29 of *The Planning Act*, for each parcel of land in respect of which the application is made; and

(*b*) in the case of an application under section 33 of *The Planning Act*, for each lot on the proposed plan of subdivision.



Exemption

(2) No fee is payable under subsection 1 in respect of,

(*a*) in the case of an application for a consent under section 29 of *The Planning Act*,

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(i) a parcel of land more than ten acres in area in respect of which the application is made

(ii) a parcel of land in respect of which the application is made that is part of the land on which the owner thereof resides and from which he derives his chief source of income by farming, where no person other than the applicant and one or more members of his immediate family are parties to the transaction in respect of which the application is made,

(iii) a parcel of land in respect of which the application is made and for which a sewage works has been approved under section 42 of *The Ontario Water Resources Act* to serve the parcel of land; or

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(*b*) in the case of an application under section 33 of *The Planning Act*,

(i) any lot that is more than ten acres in area on the proposed plan of subdivision, or

(ii) any lot that the application states will be served by a sewage works that has been approved or in respect of which an application has been or will be made for approval under section 42 of *The Ontario Water Resources Act*,

where the applicant files with the Director an affidavit showing that he is entitled to the benefit of the exemption set out in this subsection. 1973, c. 94, s. 6, *part*.

Certificate of exemption

(3) Where an affidavit is filed under subsection 2 with the Director, the Director shall cause to be prepared a certificate of exemption from the provisions of subsection 1 and cause the certificate to be delivered to the person filing the affidavit. 1973, c. 94, s. 6, *part*; 1974, c. 20, s. 22.

Consent not to be given until fee paid

(4) A consent under section 29 of *The Planning Act* or an approval under section 33 of *The Planning Act* shall not be given before the fees mentioned in subsection 1 have been paid or a certificate has been delivered pursuant to subsection 3.

Interpretation

(5) In this section, "immediate family" means the son, daughter, son-in-law, daughter-in-law, father, mother, grandchild, grandparent, adopted son, adopted daughter, stepson, stepdaughter or a person to whom the owner stands *in loco parentis*.

Recovery

(6) In addition to any other remedy and to any penalty imposed by law, any fee due and payable under this section,

(*a*) to the Treasurer of Ontario, may be recovered with costs by the Minister as a debt due to Her Majesty the Queen in right of Ontario; or

(*b*) to the corporation of a metropolitan, regional or district area, a county or a local municipality, may be recovered with costs by such corporation as a debt due to such corporation,

in a court of competent jurisdiction. 1973, c. 94, s. 6, *part*.

Offences

**62.** Any person who, in person or through an agent, representative or employee and any such agent, representative or employee who contravenes any provision of this Part or the regulations or any order or fails to comply with any term or condition of a certificate of approval or licence issued under this Part is guilty of an offence and on summary conviction is liable to a fine of not more than $1,000. 1971, c. 86, s. 62; 1972, c. 106, s. 26.

## PART VIII

### LITTER

Interpretation

**63.** In this Part, "litter" includes any material left or abandoned in a place other than a receptacle or place intended or approved for receiving such material and "littering" has a corresponding meaning. 1971, c. 86, s. 63.

Powers of Minister

**64.** The Minister, for the purposes of the administration and enforcement of this Part and the regulations, may conduct research and studies in the reprocessing, reusing or degradability of packaging or containers and in the management and disposal of litter. 1971, c. 86, s. 64.

Littering prohibited

**65.** No person shall abandon any material in a place, manner, receptacle or wrapping such that it is reasonably likely that the material will become litter. 1971, c. 86, s. 65.



Subsidies and grants

**66.** The Minister may make grants to persons to assist in the provision of receptacles to receive litter in such amounts and upon such terms and conditions as the regulations may prescribe. 1971, c. 86, s. 66.

Use or sale of packaging contrary to regulations

**67.** No person shall use, offer or expose for sale or sell, for use in Ontario, any packaging, container or material for packaging or containers contrary to this Act or the regulations. 1971, c. 86, s. 67.

Offences

**68.** Any person, whether acting personally or through an agent, representative or employee, and any such agent, representative or employee who contravenes any provision of this Part or the regulations is guilty of an offence and on summary conviction is liable on first conviction to a fine of not more than $100 and on each subsequent conviction to a fine of not more than $1,000. 1971, c. 86, s. 68.

## PART IX

### CONTROL ORDERS AND STOP ORDERS

**69.** REPEALED: 1974, c. 20, s. 23.

Control orders

**70.** The Director may, where he is authorized by this Act to issue an order known as a "control order", order the person to whom it is directed to do any one or more of the following, namely,

(*a*) to limit or control the rate of addition, emission or discharge of the contaminant into the natural environment in accordance with the directions set out in the order;

(*b*) to stop the addition, emission or discharge of the contaminant into the natural environment,

(i) permanently,

(ii) for a specified period, or

(iii) in the circumstances set out in the order;

(*c*) to comply with any directions set out in the order relating to the manner in which the contaminant may be added, emitted or discharged into the natural environment;

(*d*) to comply with any directions set out in the order relating to the procedures to be followed in the control or elimination of the addition, emission or discharge of the contaminant into the natural environment; and

(*e*) to install, replace or alter any equipment or thing designed to control or eliminate the addition, emission or discharge of the contaminant into the natural environment. 1971, c. 86, s. 70.

Compliance with control order

**71.** Subject to section 79, when a copy of a control order is served upon the person to whom it is directed, that person,

(*a*) shall comply with the order forthwith; or

(*b*) shall, if the order sets out a future date by which it is to be complied with, comply with the order on or not later than such future date. 1971, c. 86, s. 71.

Further order

**72.** The Director may, by a further order, amend, vary or revoke a control order made under this Act and in each case shall cause a copy of the order to be served on the person to whom the order so amended, replaced or revoked was directed. 1971, c. 86, s. 72.

Where Director proposes to issue control order

**73.**—(1) Where the Director proposes to issue a control order, he shall serve notice of his intention, together with written reasons therefor and a copy of the report of the provincial officer or other person designated under this Act upon which the reasons are based, and shall not issue the control order until fifteen days after the service thereof.

Submissions to Director

(2) The person to whom the Director intends to issue the control order may make submissions to the Director at any time before the control order is issued. 1971, c. 86, s. 73.

Content of stop order

**74.** The Director may, where he is authorized by this Act to issue an order known as a "stop order", order the person to whom it is directed to immediately stop or cause the source of contaminant to stop adding to, emitting or discharging into the natural environment any contaminant either permanently or for a specific period of time. 1971, c. 86, s. 74.

Form of stop order

**75.** A stop order shall be in writing and shall include written reasons for the order. 1971, c. 86, s. 75.



Compliance with stop order

**76.**—(1) When a copy of a stop order is served upon the person to whom it is directed, that person shall comply with the order immediately.

Revocation of stop order

(2) The Director may by a further order revoke a stop order and in such case shall cause a copy of the order to be served on the person to whom the stop order was directed. 1971, c. 86, s. 76.

## PART X

### APPEAL BOARD

Pollution Control Appeal Board continued

**77.**—(1) The Board known as the Pollution Control Appeal Board is continued as the Environmental Appeal Board and shall consist of not fewer than five persons appointed by the Lieutenant Governor in Council, who shall hold office during pleasure and none of whom shall be members of the public service in the employ of the Ministry. 1971, c. 86, s. 77 (1); 1972, c. 1, s. 69 (4); 1972, c. 1, s. 1.

Chairman and vice-chairman

(2) The Lieutenant Governor in Council may appoint one of the members of the Appeal Board as chairman and another of the members as vice-chairman.

Quorum

(3) Three members of the Appeal Board constitute a quorum.

Remuneration

(4) The members of the Appeal Board shall be paid such remuneration and expenses as the Lieutenant Governor in Council from time to time determines. 1971, c. 86, s. 77 (2-4).

One member may conduct hearing

(5) The chairman may authorize one member of the Board to conduct a hearing by the Board and such member has all the powers of the Board for the purpose of such hearing.

Report

(6) The report of such member may be adopted as the decision of the Board by two other members of the Board, one of whom shall be the chairman or vice-chairman or may be otherwise dealt with as the Board considers proper.

Appointment of staff
R.S.O. 1970, c. 386

(7) Such employees as are required for the purposes of the Board may be appointed under *The Public Service Act*. 1972, c. 1, s. 69 (5).

**77***a*. REPEALED: 1974, c. 20, s. 24.

When Director refuses approval, etc.

**78.**—(1) When the Director,

(*a*) refuses to give his approval of plans and specifications;

(*b*) requires a condition precedent to the giving of his approval;

(*c*) refuses to issue a certificate of approval or a provisional certificate of approval;

(*d*) refuses to renew a certificate of approval or a provisional certificate of approval; or

(*e*) suspends or revokes a certificate of approval or a provisional certificate of approval,

he shall serve notice upon the applicant or holder, as the case may be, together with written reasons therefor, and the applicant or holder may, by written notice served upon the Director and the Board within fifteen days after the service of the notice, require a hearing by the Board. 1971, c. 86, s. 78 (1).

When Director refuses licence or permit

(2) When the Director,

(*a*) refuses to issue or renew or cancels or suspends a licence or permit;

(*b*) imposes terms and conditions in issuing a licence or permit or certificate of approval or provisional certificate of approval; or

(*c*) alters the terms and conditions of a certificate of approval, provisional certificate of approval, a licence or permit after it is issued,

the Director shall serve notice together with written reasons therefor upon the applicant or the person to whom the licence or permit or certificate of approval or provisional certificate of approval is issued, as the case may be, and the applicant or person may, by written notice served upon the Director and the Board within fifteen days after the service of the notice, require a hearing by the Board. 1971, c. 86, s. 78 (2); 1972, c. 106, s. 28.

Appeal of order

**79.**—(1) A person to whom an order of the Director is directed may, by written notice served upon the Director and the Board within fifteen days after service upon him of a copy of the order, require a hearing by the Board. 1971, c. 86, s. 79 (1).

Enforcement of order

(2) No imposition or alteration of terms and conditions, suspension or revocation, refusal to renew or order, except a



tion under section 52*c*, shall be enforced until final disposition of an appeal, if any, or until the time for taking an appeal against the order has passed. 1971, c. 86, s. 79 (2); 1972, c. 106, s. 29.

Powers of Board

**80.**—(1) A hearing by the Board shall be a hearing *de novo* and the Board may confirm, alter or revoke the order, refusal or requirement that is the subject of the hearing.

Appeal to county court

(2) A party to a hearing before the Board may, within thirty days after receipt of the decision of the Board, appeal on a question of law to the county court of the county or district in which is located the source of contaminant, waste disposal site or waste management system which gives rise to the hearing before the Board.

Appeal to Minister

(3) A party to a hearing before the Board may, within thirty days after receipt of the decision of the Board or within thirty days after final disposition of an appeal, if any, under subsection 2, appeal in writing to the Minister on any matter other than a question of law and the Minister shall confirm, alter or revoke the decision of the Board as to the matter in appeal as he considers in the public interest. 1971, c. 86, s. 80.

Parties to hearing

**81.** The person requiring the hearing, the Director and any other person specified by the Board are parties to the hearing. 1971, c. 86, s. 81.

## PART XI

### PROVINCIAL OFFICERS

Designation of provincial officers

**82.** The Minister may designate in writing one or more officers or employees of the Ministry or other persons as provincial officers for the purposes of any section or Part of this Act or any regulation or section of any regulation relating thereto. 1973, c. 94, s. 7.

Survey by provincial officer

**83.**—(1) A provincial officer may survey from time to time anything that he has reason to believe is or may be a source of contaminant, and after completing such survey shall report his findings and his recommendations.

Report to be sent to Ministry and person responsible

(2) The provincial officer shall file his report of his findings and recommendations with the Ministry and shall serve upon the person responsible for the source of contaminant a copy thereof. 1971, c. 86, s. 83; 1972, c. 1, s. 1.

Powers of provincial officer

**84.**—(1) For the purpose of the administration of this Act and the regulations, a provincial officer may, from time to time and upon production of his designation, enter at any reasonable time any building, structure, machine, vehicle, land, water or air and make or require to be made such surveys, examinations, investigations, tests and inquiries, including examinations of books, records and documents, as he considers necessary, and may make, take and remove or may require to be made, taken or removed samples, copies or extracts. 1973, c. 94, s. 8, *part*; 1974, c. 20, s. 25.

Order authorizing

(2) Where a provincial judge is satisfied, upon an *ex parte* application by a provincial officer, that there is reasonable ground for believing that it is necessary to enter any building, structure, machine, vehicle, land, water or air for the administration of this Act or the regulations, the provincial judge may issue an order authorizing a provincial officer to enter therein or thereon and to make or require to be made such surveys, examinations, investigations, tests and inquiries and to take the other actions mentioned in subsection 1 but every such entry, survey, examination, investigation, test, inquiry and other such action shall be made or taken between sunrise and sunset unless the provincial judge authorizes the provincial officer, by the order, to so act at another time. 1973, c. 94, s. 8.

Information

(3) Every person responsible for a source of contaminant shall furnish such information as a provincial officer requires for the purposes of this Act or the regulations. 1971, c. 86, s. 84 (3).

Calling for assistance of member of police force

**85.**—(1) Whenever a provincial officer is required or empowered by this Act or the regulations to do or direct the doing of anything, such provincial officer may take such steps and employ such assistance as is necessary to accomplish what is required, and may, when obstructed in so doing, call for the assistance of any member of the Ontario Provincial Police Force or the police force in the area where the assistance is required and it is the duty of every member of a police force to render such assistance. 1971, c. 86, s. 85.

Inspection of motor vehicles

(2) A provincial officer, for the purpose of carrying out the provisions of this Act and the regulations, may require the driver of any motor vehicle to stop and may inspect the motor vehicle and require the driver of the motor vehicle to submit the motor vehicle, together with its equipment and any trailer attached thereto, to such examinations and tests at such place or places and time or times as the provincial officer considers expedient and where the provincial officer considers it necessary or expedient he may call for the assistance of any member of the



Ontario Provincial Police Force or the police force in the area where the assistance is required and it is the duty of every member of a police force to render such assistance.

Duty of driver of motor vehicle

(3) Every driver of a motor vehicle shall stop or submit the motor vehicle, together with its equipment and any trailer attached, to such examinations and tests as may be required by a provincial officer or a member of a police force referred to in subsection 2. 1973, c. 94, s. 9.

Obstruction of provincial officer

**86.** No person shall hinder or obstruct a provincial officer in the lawful performance of his duties or furnish a provincial officer with false information or refuse to furnish him with information required for the purposes of this Act and the regulations. 1973, c. 94, s. 10.

Matters confidential

**87.**—(1) Except as to information in respect of the deposit, addition, emission or discharge of a contaminant into the natural environment, every provincial officer shall preserve secrecy in respect of all matters that come to his knowledge in the course of any survey, examination, test or inquiry under this Act or the regulations and shall not communicate any such matters to any person except,

(*a*) as may be required in connection with the administration of this Act and the regulations or any proceedings under this Act or the regulations;

(*b*) to his counsel; or

(*c*) with the consent of the person to whom the information relates.

Testimony in civil suit

(2) Except in a proceeding under this Act or the regulations, no provincial officer shall be required to give testimony, other than testimony in respect of the deposit, addition, emission or discharge of a contaminant into the natural environment, in any civil suit or proceeding with regard to information obtained by him in the course of any survey, examination, test or inquiry under this Act or the regulations. 1971, c. 86, s. 87.

## PART XII

### ENVIRONMENTAL COUNCIL

Interpretation

**88.** In this Part, "Council" means the Environmental Council. 1971, c. 86, s. 88.

Environmental Council established

**89.**—(1) A council to be known as the Environmental Council may be established and shall consist of not fewer than seven and not more than eleven persons appointed by the Lieutenant Governor in Council, each to hold office for a term of not more than three years.

Chairman and vice-chairman

(2) The Lieutenant Governor in Council may appoint one of the members of the Council as chairman and another of the members as vice-chairman.

Members

(3) The composition of the Council shall be such as to provide for competent and knowledgeable persons in matters relating to the natural environment.

Vacancies

(4) Vacancies in the membership of the Council may be filled by the Lieutenant Governor in Council.

Remuneration

(5) The members of the Council shall be paid such remuneration and expenses as the Lieutenant Governor in Council from time to time may determine. 1971, c. 86, s. 89.

Duties of Council

**90.** The Council, through its chairman, shall,

(*a*) advise the Minister as to the results of current research related to,

(i) pollution, and

(ii) the natural environment; and

(*b*) consider any matter affecting the quality of the environment which the Council or the Minister deems advisable and advise the Minister thereon through its chairman. 1971, c. 86, s. 90.

## PART XIII

### MISCELLANEOUS

**91.** REPEALED: 1974, c. 20, s. 26.

Where contaminant causes damage to crops or live stock

**92.**—(1) Where a person complains that a contaminant is causing or has caused injury or damage to live stock or to crops, trees or other vegetation which may result in economic loss to such person, he may, within fourteen days after the injury or damage becomes apparent, request the Minister to



Request for investigation

(2) Upon receipt of a request, the Minister may cause an investigation to be made and a report prepared of the findings of the investigation.

Report of investigation

(3) A copy of the report shall be given to the claimant and to the person responsible for the source of contaminant alleged to be the cause of the injury or damage.

Right of person responsible to view damage, etc.

(4) The claimant shall permit the person responsible for such source of contaminant or his agent to view the injury or damage and to remove samples and conduct tests and examinations as may be reasonably necessary to establish the cause of the injury or damage.

Board of negotiation

(5) A board of negotiation shall be established consisting of two or more members appointed by the Lieutenant Governor in Council, one of whom may be designated as chairman.

Quorum

(6) Any two members of the board of negotiation constitutes a quorum and are sufficient to perform all the functions of the board on behalf of the board.

Place of sitting

(7) The board of negotiation may sit at any place in Ontario.

Notice of amount of claim

(8) If a complainant who has requested an investigation under subsection 1 desires to have his claim for injury or damage negotiated by the board of negotiation, he shall notify the Minister and the person responsible for the source of contaminant alleged to be the cause of the injury or damage of the amount of his claim within a reasonable time after the amount can be determined.

Notice of negotiation

(9) If the claimant and the person responsible are not able to settle the claim within thirty days after notice of the claim is given to the Minister under subsection 8, the claimant or the person responsible may serve notice of negotiation upon the other of them and upon the board of negotiation stating that he requires a settlement of the claim to be negotiated by the board of negotiation.

Negotiation proceedings

(10) Upon receipt of a notice of negotiation, the board of negotiation shall assess the injury or damage in respect of which the claim is made and, upon reasonable notice to the claimant and to the person responsible, shall meet with them and, without prejudice to any subsequent proceedings, proceed in a summary and informal manner to negotiate a settlement of the claim. 1971, c. 86, s. 92.

Consents, notices, etc., as evidence

**93.** Any consent, notice, licence, permit, approval, order or certificate purporting to be signed by the Director or the Minister or by such officer of the Ministry as is designated in the regulations, or any certified copy, is receivable in evidence in any action, prosecution or other proceeding as *prima facie* proof of the facts set out therein without proof of the signature or the official position of the person appearing to have signed it. 1971, c. 86, s. 93; 1972, c. 1, s. 1.

Regulations

**94.**—(1) The Lieutenant Governor in Council may make regulations,

(*a*) classifying contaminants and sources of contaminants and exempting any classes from the provisions of this Act and the regulations;

(*b*) prohibiting or regulating and controlling the depositing, addition, emission or discharge of any contaminant or contaminants into the natural environment from any source of contaminant or any class thereof;

(*c*) prescribing maximum permissible amounts, concentrations or levels of any contaminant or combination of contaminants and any class of either of them;

(*d*) prescribing methods or standards, or both, for determining the amount, concentration or level of any contaminant, combination of contaminants or any class of either of them;

(*e*) defining the desirable quality criteria of the natural environment;

(*f*) classifying persons for the purposes of this Act and exempting any class from any provision thereof;

(*g*) classifying plants, structures and things, prescribing classes thereof that shall not be constructed, altered or modified unless the plans and specifications thereof are approved by the Director, and prescribing classes thereof for which the approval of the Director as to the plans and specifications is not required;

(*h*) prescribing the details that shall be set out in plans and specifications submitted to the Director for approval;

(*i*) prescribing the amounts of grants and loans and the terms and conditions of such grants and loans;

. . . . . .



1967, c. 2

(*k*) amending or revoking in whole or in part the regulations made under *The Air Pollution Control Act, 1967*;

(*l*) prescribing the maximum permissible concentration or level in water of any contaminant either generally or with respect to any part of the water of Ontario specified in the regulations;

(*m*) prescribing methods for determining the concentration or level in water of any contaminant, either generally or with respect to any part of the water of Ontario specified in the regulations, for the purposes of the regulations;

(*n*) prescribing maximum permissible changes in temperatures of water, either generally or with respect to any part of the water of Ontario specified in the regulations;

(*o*) prescribing fees that may be charged and collected by the Ministry for copies of documents, maps, plans and drawings supplied by the Ministry;

(*p*) regulating the quality of fuels that may be used for heating, generating steam or electricity, for industrial processes or for incineration. 1971, c. 86, s. 94 (1); 1972, c. 1, s. 1; 1972, c. 106, s. 31 (1); 1973, c. 94, s. 11 (1).

Regulations relating to Part III

(2) The Lieutenant Governor in Council may make regulations relating to Part III,

(*a*) classifying motors and motor vehicles for the purpose of any regulation and exempting any class or type of motor or motor vehicle from any regulation;

(*b*) regulating or prohibiting the operation in all or any part of Ontario of any class or type of motor or motor vehicle in order to lessen or prevent the emission of any pollutant into the natural environment;

(*c*) requiring motors or motor vehicles or any class or type of motor or motor vehicle to have installed thereon or incorporated therein one or more systems or devices to prevent or lessen the emission of any contaminant into the natural environment, prescribing the standards and specifications of any such system or device, prescribing the standards of emission of any contaminant into the natural environment with

which any such system or device shall comply and providing for testing and inspection of any such system or device;

(*d*) prescribing the standards of emission into the natural environment of any contaminant by any motor or motor vehicle or any class or type of motor or motor vehicle and providing for the testing and inspection of any such motor, motor vehicle, class or type;

(*e*) regulating the quality of motor fuels and additives used or intended for use in motor fuels in Ontario. 1971, c. 86, s. 94 (2).

Regulations relating to Part IV

(3) The Lieutenant Governor in Council may make regulations relating to Part IV,

(*a*) requiring and regulating the storage, treatment and disposal of sewage in boats and ships or any class or classes thereof and the equipment therefor, and prohibiting the use and installation of equipment for the storage, treatment or disposal of sewage in boats and ships or any class or classes thereof unless the equipment and installation thereof conform to the regulations, and providing for and requiring the approval of the Director for any such equipment, and prohibiting and regulating the discharge of sewage from such boats and ships or any class or classes thereof;

(*b*) regulating and controlling, for the purpose of preventing or reducing the pollution of any water, places or any class or classes thereof located on or adjacent to any water where moorings are provided for boats or ships or where any services are provided for boats or ships or the occupants thereof, and regulating and governing persons providing such moorings or services, or any class or classes thereof;

(*c*) defining sewage for the purposes of regulations made under clauses *a* and *b*;

(*d*) prescribing forms and providing for their use for the purposes of Part IV;

(*e*) providing for the issue of permits and identification plates for ice shelters and requiring and governing their use;

(*f*) regulating the placing, construction and standard of the storage, treatment and disposal of [illegible] and requiring and regulating



requiring the approval of the Director for any equipment and things related thereto by any person or class of persons and prohibiting the placing, allowing to remain or use of an ice shelter contrary to or in a condition that is contrary to the regulations or without any equipment or facilities required by the regulations;

(*g*) prescribing the dates within which ice shelters may be placed, allowed to remain or used on or over the ice over any water. 1971, c. 86, s. 94 (3); 1973, c. 94, s. 11 (2).

Regulations relating to Part V

(4) The Lieutenant Governor in Council may make regulations relating to Part V,

(*a*) designating wastes in addition to those specified in clause *d* of section 28, and exempting any wastes from this Part and the regulations or any provision thereof, and prescribing terms and conditions for such exemption;

(*b*) classifying waste management systems and waste disposal sites, and exempting any class thereof from this Part or the regulations or any provision thereof, and prescribing terms and conditions for such exemption;

(*c*) providing for the issue of certificates of approval and provisional certificates of approval for waste management systems or waste disposal sites, or any class thereof;

(*d*) governing and regulating the management of waste and prescribing standards for waste management systems and for the location, maintenance and operation of waste disposal sites, or any class thereof;

(*e*) governing the location of waste disposal sites and designating parts of Ontario in which no waste disposal sites, or any class thereof, shall be established or operated;

(*f*) prescribing the amounts and conditions of deposits and bonds and sureties for the purpose of section 34, and prescribing the terms and conditions upon which deposits may be returned under section 36;

(*g*) prescribing the records that shall be kept by operators of waste management systems and waste disposal sites and the reports that shall be made by such operators;

(*h*) prescribing the records to be kept and the returns to be made by persons to whom a licence has been

(*h*) prescribing the form of application and the procedure to be followed in applying for any compensation under this Part;

(*i*) amending or revoking in whole or in part the regulations made under *The Waste Management Act*; R.S.O. 1970, c. 491

(*j*) prescribing the rates of the fees for the disposal of any type of waste in a well that is a waste disposal site that shall be paid into The Waste Well Disposal Security Fund. 1971, c. 86, s. 94 (4); 1972, c. 106, s. 31 (2, 3).

(5) REPEALED: 1973, c. 94, s. 11 (3).

(6) The Lieutenant Governor in Council may make regulations relating to Part VII,

Regulations relating to Part VII

(*a*) prescribing standards for the construction, operation and maintenance of sewage systems;

(*b*) prescribing standards, methods and equipment for the cleaning, disinfecting and emptying of sewage systems;

(*c*) classifying sewage systems and exempting any class thereof from Part VII or the regulations or any provision thereof and prescribing terms and conditions for such exemptions;

(*d*) prescribing fees for certificates of approval and permits for the use or operation of sewage systems or any class or classes thereof;

(*e*) governing the location of sewage systems;

(*f*) designating areas in which any class of sewage system may not be established or operated;

(*g*) prescribing classes of licence holders and exempting any class from any provision of Part VII or any regulation made under this subsection, and attaching conditions to any such exemption;

(*h*) prescribing the qualification of licence holders, providing for the examination of applicants for licences and prescribing the fees for such examinations;

(*i*) providing for the issue and renewal of licences and the fees therefor;

(*j*) prescribing the records to be kept and the returns to be made by persons to whom a licence has been granted;

(*k*) prescribing fees or rates of fees payable and the procedure for payment under section 61*b*;

(*l*) prescribing qualifications of inspectors, providing for their classification, examination and certification, prescribing fees for such examination and certification and providing for the terms upon which such certification may be suspended or cancelled and prohibiting any municipality from carrying out any inspections under an agreement under Part VII except by certified inspectors;

(*m*) exempting any parcel or class of parcels of land in respect of which an application for a consent is made under section 29 of *The Planning Act* from the payment of a fee under section 61*b*. 1971, c. 86, s. 94 (6); 1972, c. 106, s. 31 (11, 12); 1973, c. 94, s. 11 (4). R.S.O. 1970, c. 349

Regulations relating to Part VIII

(7) The Lieutenant Governor in Council may make regulations relating to Part VIII,

(*a*) defining standard, refillable, returnable, non-refillable or non-returnable in respect of containers and returnable or non-returnable in respect of packaging or defining any beverage for the purposes of the regulations;

(*b*) requiring payment of a deposit at the time of purchase of any material or any beverage packaged or contained in any class of packaging or container and regulating the amount, terms and conditions of deposits;

(*c*) requiring and regulating the stocking, display, sale or offering for sale of any beverage,

(i) in any class of container in relation to the stocking, display, sale or offering for sale of the beverage in any other class of container, or

(ii) only in a class of container that may be prescribed;

(*d*) prohibiting the sale or offering for sale in Ontario of any beverage in any class of container or in or by means of a vending machine;

(*da*) requiring and regulating the advertising or display of,

(i) the price of a beverage that is sold or offered for sale exclusive of the amount of any deposit payable on the purchase of the beverage,

(ii) the amount of any deposit payable on the purchase of a beverage,

(iii) the amount payable in return for any container,

(iv) copies of the regulations or portions of the regulations or a summary thereof in such form as may be prescribed by the regulations;

(*db*) requiring that a notice or mark appear on any container of any beverage or on any label for any container of a beverage to indicate that the container is standard, refillable, returnable, non-refillable or non-returnable or in respect of a payment to be made in return for the container and governing the size, form, content and position of the notice or mark;

(*dc*) requiring and regulating the payment of an amount in return for any packaging or container, prescribing the amount to be paid and requiring and regulating the acceptance and collection of any packaging or container by such classes of persons as may be designated by the regulations;

(*dd*) classifying packaging or containers or any materials or combinations of materials used as packaging or containers and classifying beverages;

(*de*) exempting any person or class of persons, any beverage or any packaging or container or any material or combination of materials used as packaging or a container from any provision of Part VIII or of the regulations;

(*e*) requiring, regulating and prohibiting the use, offering for sale or sale in Ontario of any packaging or container, or any material or combination of materials used as packaging or a container;



(*ea*) providing a schedule for the regulation and the prohibition within five years of the use, offering for sale or sale in Ontario of non-refillable or non-returnable containers for any beverage;

(*f*) governing the material of the packaging or containers in any class of packaging or containers used or sold for use in Ontario;

(*g*) requiring and governing the placing of receptacles to receive litter and governing the capacity, design and construction of such receptacles;

(*h*) prescribing the amounts of grants to persons to assist in the provision of receptacles to receive litter, and the terms and conditions of such grants. 1971, c. 86, s. 94 (7); 1972, c. 106, s. 31 (13); 1976, c. 49, s. 1 (1).

**NOTE: The regulations made under clause ea of subsection 7 of section 94 above shall be filed under The Regulations Act not later than the 1st day of July, 1977. See 1976, c. 49, s. 1 (2).**

Scope of regulations

**95.**—(1) Any regulation may be general or particular in its application, may be limited as to time or place or both and may exclude any place from the application of the regulation. 1974, c. 125, s. 2.

Adoption of codes in regulations

(2) Any regulation may adopt by reference, in whole or in part, with such changes as the Lieutenant Governor in Council considers necessary, any code, formula, standard or procedure, and may require compliance with any code, standard or procedure so adopted. 1971, c. 86, s. 95 (2).

Municipal by-laws

**95*a*.**—(1) The councils of local municipalities may, subject to the approval of the Minister, pass by-laws,

(*a*) regulating or prohibiting the emission of sounds or vibrations;

(*b*) providing for the licensing of persons, equipment and premises, or any of them, with respect to the emission of sounds or vibrations;

(*c*) prescribing maximum permissible levels of sounds or vibrations that may be emitted;

(*d*) prescribing procedures for determining the levels of sounds or vibrations that are emitted,

and such a by-law may make different provisions for different areas of a local municipality and may make provisions for exempting any person, equipment or premises

from any provision of the by-law for such period of time and subject to such terms and conditions as may be set out or provided for in the by-law.

Adoption of codes in by-laws

(2) A by-law passed by the council of a local municipality pursuant to subsection 1 may adopt by reference, in whole or in part, with such changes as the council considers necessary, any code, formula, standard or procedure, and may require compliance with any code, standard or procedure so adopted.

Application of R.S.O. 1970, c. 284

(3) Part XXI of *The Municipal Act* applies to by-laws passed under this section. 1974, c. 125, s. 3.

Conflict

**96.**—(1) Where a conflict appears between any provision of this Act or the regulations and any other Act or regulation in a matter related to the natural environment or a matter specifically dealt with in this Act or the regulations, the provision of this Act or the regulations shall prevail. 1971, c. 86, s. 96.

Idem

(2) Subsection 1 does not apply in respect of section 95*a* and the enactment of section 95*a* or a by-law pursuant to section 95*a* does not affect the validity of an Act that is in force immediately before the coming into force of section 95*a*. 1974, c. 125, s. 4.

Protection from personal liability

**96*a*.**—(1) Except in the case of an application for judicial review or an action or proceeding that is specifically provided for with respect to a person referred to in this subsection in any Act or in a regulation under this or any other Act, no action or other proceeding for damages or otherwise shall be instituted against an employee of the Ministry, a member of the Board or of the Hearing Board or a Crown employee within the meaning of *The Public Service Act* who R.S.O. 1970, c. 386 is a provincial officer or is acting under the direction of an employee of the Ministry, or such member or provincial officer for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any such duty or authority.

Crown not relieved of liability

(2) Subsection 1 does not, by reason of subsections 2 and 4 of section 5 of *The Proceedings Against the Crown Act*, R.S.O. 1970, c. 365 relieve the Crown of liability in respect of a tort committed by an agent or servant of the Crown to which it would otherwise be subject and the Crown is liable under that Act for any such tort in a like manner as if subsection 1 had not been enacted. 1974, c. 20, s. 27.



Certificate of analysis as evidence

**97.** In any prosecution, proceeding or hearing under this Act or the regulations, the production of a certificate or report of an analyst of the Department as to the analysis, description, ingredients, quality, quantity or temperature of any material, whether solid, liquid or gas, or any combination of them, is *prima facie* evidence of the facts stated therein and of the authority of the person making the certificate or report without any proof of appointment or signature. 1971, c. 86, s. 97.

Service

**98.**—(1) Any notice, decision or other document required to be given or served under this Act or the regulations is sufficiently given or served if delivered personally or sent by registered mail addressed to the person to whom delivery or service is required to be made at the latest address for service appearing on the records of the Ministry.

When service deemed made

(2) Where service is made by registered mail, the service shall be deemed to be made on the fifth day after the day of mailing unless the person on whom service is being made establishes that he did not, acting in good faith, through absence, accident, illness or other cause beyond his control receive the notice or order until a later date. 1971, c. 86, s. 98; 1972, c. 1, s. 1.

Enforcing performance of things required to be done

**99.** Where the Minister or the Director has authority to order or require that any matter or thing be done, the Minister may order that, in default of its being done by the person ordered or required to do it, such matter or thing shall be done at the expense of such person, and the Minister may recover the cost of doing it, with costs, by action in a court of competent jurisdiction as a debt due to the Crown by such person. 1971, c. 86, s. 99.

Power to restrain by action

**100.** Where any provision of this Act or the regulations or any direction, order, approval, notice or permit, made, granted, given, served or issued by the Minister or the Director under this Act is contravened, in addition to any other remedy and to any penalty imposed by law, such contravention may be restrained by action at the instance of the Minister. 1971, c. 86, s. 100.

False information

**101.** No person shall knowingly give false information in any application, return or statement made to the Minister, a provincial officer or any employee of the Ministry in respect of any matter under this Act or the regulations. 1974, c. 20, s. 28.

Offence

**102.**—(1) Except as otherwise provided in this Act, every person, whether as principal or agent, or an employee of

either of them, who contravenes any provision of this Act or the regulations or fails to comply with an order or any term or condition of a certificate of approval or a licence made or issued under this Act is guilty of an offence and on summary conviction is liable on a first conviction to a fine of not more than $5,000 and on each subsequent conviction to a fine of not more than $10,000 for every day or part thereof upon which such offence occurs or continues. 1971, c. 86, s. 102 (1); 1972, c. 106, s. 32.

Exception when order or program approval complied with

(2) Notwithstanding subsection 1, a person to whom an order or program approval of the Minister or the Director is directed who complies fully with the order or approval shall not be prosecuted for or convicted of an offence in respect of the matter or matters dealt with in the order or approval that occurs during the period within which the order or program approval is applicable. 1971, c. 86, s. 102 (2); 1973, c. 94, s. 12.

Application of Part VII

**103.** Part VII of this Act applies in such areas in Ontario as are designated by the Lieutenant Governor by his proclamation. 1971, c. 86, s. 103; 1972, c. 106, s. 33.

Repeal R.S.O. 1970, cc. 16, 491

**104.** *The Air Pollution Control Act* and *The Waste Management Act* are repealed. 1971, c. 86, s. 104.

# REGULATION 15

**under The Environmental Protection Act, 1971**

## GENERAL

### INTERPRETATION

**1.** In this Regulation,

(*a*) "air pollution episode" means an occasion when air contamination is at such a level and for such a period of time that the air contamination may become the cause of increased human sickness and mortality;

(*b*) "air pollution index" means a series of numbers expressing the relative levels of air pollution and taking into consideration one or more air contaminants;

. . . . .

(*d*) "equipment" includes apparatus, device, mechanism or structure;

(*e*) "fuel burning equipment" includes equipment designed to burn fuel but does not include an internal combustion engine;

(*ea*) "highway" means highway as defined in subsection 1 of section 1 of *The Highway Traffic Act*;

(*f*) "incinerator" includes equipment used for the burning of waste;

(*g*) "opacity" means,

(i) the color of a visible emission in shades of grey to black, or

(ii) the degree to which a visible emission obstructs the passage of light;

(*h*) "point of emission" means the point at which a contaminant enters the natural environment;

(*i*) "visible emission" means any contaminant which can be detected by the naked eye. R.R.O. 1970, Reg. 15, s. 1; O. Reg. 873/74, s. 1.

### APPLICATION

**2.** The Act and this Regulation apply to all areas within Ontario. R.R.O. 1970, Reg. 15, s. 2.

### EXEMPTIONS

**3.** The following sources of contaminant are classes for which the approval of the Director as to the plans and specifications is not required under section 8 of the Act:

1. Fuel burning equipment used for the purpose of comfort heating in a building using natural gas or No. 2 oil at a rate of less than 1.5 million British Thermal Units per hour.

2. Equipment for the preparation of food in a domestic residence.

3. Fuel burning equipment used solely for the purpose of comfort heating in a dwelling used for the housing of not more than three families.

4. Equipment for construction or maintenance of a highway while the equipment is being used on the highway. O. Reg. 873/74, s. 2.

### AIR POLLUTION INDEX

**4.**—(1) The Department may prepare an index to be known as the "Air Pollution Index" for any area in Ontario, from time to time.

(2) Where the air pollution index for an area indicates increasing air pollution that may lead to an air pollution episode, the Minister, in consultation with the Minister of Health, may order curtailment of the operation of sources of air pollution in the manner described in subsections 3 and 4.

(3) Where the air pollution index reaches the number 32, designated as Air Advisory Level, and meteorological forecasts indicate a six hour prolongation of atmospheric conditions conducive to sustained or increased air pollution levels, the Minister may require owners or operators of sources of air pollution to make preparation for the curtailment of such operations as are specified by the Minister.

(4) Where the air pollution index reaches the number 50, designated as First Air Pollution Alert, and meteorological forecasts indicate a six hour prolongation of atmospheric conditions conducive to sustained or increased air pollution levels, the Minister may require owners or operators of sources of air pollution to curtail such operations as are specified by the Minister. R.R.O. 1970, Reg. 15, s. 4.





**5.**—(1) The maximum concentration of a contaminant set out in Column 1 of Schedule 1 at a point of impingement from a source of contaminant, other than a motor vehicle, shall not be greater than the concentration set out opposite thereto in Column 3 of Schedule 1, expressed in the unit of concentration set out opposite thereto in Column 2 of Schedule 1.

(2) The concentration of a contaminant at a point of impingement may be calculated in accordance with the Appendix.

(3) No person shall cause or permit the concentration of a contaminant at a point of impingement to exceed the standard prescribed in Schedule 1. O. Reg. 873/74, s. 3, *part*.

**6.** No person shall cause or permit to be caused the emission of any air contaminant to such extent or degree as may,

(*a*) cause discomfort to persons;

(*b*) cause loss of enjoyment of normal use of property;

(*c*) interfere with normal conduct of business; or

(*d*) cause damage to property. R.R.O. 1970, Reg. 15, s. 6.

**7.**—(1) The Ministry shall prepare a chart to be known as the "Visible Emission Chart of the Province of Ontario".

(2) The Visible Emission Chart of the Province of Ontario shall consist of two one-inch squares on a white background such that,

(*a*) the area within the square designated as number 1 shall have black dots or lines evenly spaced such that approximately twenty per cent of the area is black;

(*b*) the area within the square designated as number 2 shall have black dots or lines evenly spaced such that approximately forty per cent of the area is black.

(3) For the purpose of enforcing the Act and this Regulation no person other than a provincial officer who has been trained by the Ministry in the identification of opacity shall determine the opacity of a visible emission. O. Reg. 873/74, s. 3, *part*.

**8.**—(1) Subject to subsection 2, no person shall cause or permit to be caused a visible emission,

(*a*) having shades of grey darker than number 1 on the Visible Emission Chart of the Province of Ontario at the point of emission; or

(*b*) that obstructs the passage of light to a degree greater than twenty per cent at the point of emission.

(2) A visible emission from a source of combustion employing solid fuel may,

(*a*) be in shades of grey darker than number 1, but not darker than number 2 on the Visible Emission Chart of the Province of Ontario at the point of emission; or

(*b*) obstruct the passage of light to a degree greater than 20 per cent but no greater than 40 per cent at the point of emission,

for a period of not more than four minutes in the aggregate in any thirty-minute period. O. Reg. 873/74, s. 3, *part*.

**9.** Where at any stationary source of air pollution a failure to operate in the normal manner or a change in operating conditions occurs, or a shut-down of the source or part thereof is made for some purpose, resulting in the emission of air contaminants that may result in quantities or concentrations in excess of those allowed in sections 5, 6 and 8,

(*a*) the owner or operator of the source of air pollution shall,

(i) immediately notify a provincial officer and furnish him with particulars of such failure, change or shut-down, and

(ii) furnish the provincial officer with the particulars in writing, as soon as is practicable, of such failure, change or shut-down; and

(*b*) the provincial officer, where he considers it advisable, may authorize, in writing, the continuance of such operation for such period of time as he considers reasonable in the circumstances and may impose upon the owner or operator such terms and conditions for such continued operation as he considers necessary in the circumstances. R.R.O. 1970, Reg. 15, s. 9

**10.**—(1) No person shall burn or permit to be burned in any fuel burning equipment or incinerator any fuel or waste except the fuel or waste for the burning of which the equipment or incinerator was designed.

(2) No person shall burn or permit to be burned in any fuel burning equipment or incinerator any fuel or waste at a greater rate than that rate for which the

equipment or incinerator was designed. R.R.O. 1970, Reg. 15, s. 10.

**10***a*. Except for heat, sound, vibration or radiation, no person shall,

(*a*) construct, alter, demolish, drill, blast, crush or screen anything or cause or permit the construction, alteration, demolition, drilling, blasting, crushing or screening of anything so that a contaminant is carried beyond the limits of the property on which the construction, alteration, demolition, drilling, blasting, crushing or screening is being carried out; or

(*b*) sandblast or permit the sandblasting of anything so that a contaminant is emitted into the air,

to an extent or degree greater than that which would result if every step necessary to control the emission of the contaminant were implemented. O. Reg. 873/74, s. 4.

**11.** No person shall operate or permit the operation of,

(*a*) an apartment incinerator, domestic incinerator, multiple chamber incinerator or starved air incinerator burning domestic waste;

(*b*) a multiple chamber incinerator or a starved air incinerator burning solid industrial waste; or

(*c*) an incinerator burning liquid industrial waste, industrial slurries or sludges, sewage sludges or slurries, gaseous waste, organic vapour or fume,

which causes or is likely to cause a concentration in the combustion gases emitted into the natural environment, of organic material having a carbon content, expressed as equivalent methane, greater than fifty parts per million by volume. O. Reg. 873/74, s. 5, *part*.

**12.** No person shall store, handle or transport any solid, liquid or gaseous material or substance in such manner that an air contaminant is released to the atmosphere. R.R.O. 1970, Reg. 15, s. 12.

**13.** to **16.** REVOKED: O. Reg. 873/74, s. 5, *part*.

## Appendix

1. In this Appendix, wherever the height of a building or structure is referred to, there shall not be included in calculating such height the height of any flagpole, aerial or stack designed for venting emissions.

2. The concentration of a contaminant at a point of impingement shall be calculated as follows:

(*a*) where the point of impingement is located on the building or structure or is within five metres horizontally of the building or structure on which the point of emission is located, and,

(i) the height above grade at the point of emission is less than twice the height of the highest part of the building or structure on which the point of emission is located where the highest part of the building or structure is at a height of not more than twenty metres above grade,
(*see figures 1 and 2*)

(ii) the height of the highest part of the building or structure on which the point of emission is located is greater than twenty metres above grade and the point of emission is less than twenty metres above the highest part of the building or structure on which it is located, or
(*see figure 3*)

(iii) there is a building or structure upwind from the point of emission such that,

a. the height above grade of the building or structure is greater than the height above grade at the point of emission, and

b. the building or structure is a horizontal distance of 100 metres or less from the point of emission,
(*see figures 4 and 5*)

the following formula shall be applied:
(*see notes 1 and 2*)

$$K = \frac{0.6 \times 10^6 \times Q}{L^2}$$

Where: K is the half hour average concentration at the point of impingement in micrograms per cubic metre,

Q is the rate of emission in grams per second of the contaminant,

L is,

(i) where the point of impingement is at the same height or higher above grade than the point of emission, the straight line distance in metres between the point of emission and the point of impingement, or

(ii) where the point of impingement is lower in height above grade than the point of emission, the product of 1.57 and the straight line distance in metres between the point of emission and the point of impingement.

NOTES: 1. Where a building or structure adjacent to the building or structure on which the point of emission is located is within five metres of that building or structure, it shall be treated as being part of the building or structure on which the point of emission is located.

2. Where K yields a value greater than the concentration of the contaminant at the point of emission, the concentration of the contaminant at the point of emission shall be deemed to be the value of K.

(*b*) where the point of impingement is a horizontal distance of five metres or more from the building or structure on which the point of emission is located and,

(i) the height above grade at the point of emission is less than twice the height of the highest part of the building or structure on which the point of emission is located where the highest part of the building or structure is at a height of not more than twenty metres above grade,
(*see figures 6 and 7*)

(ii) the height of the highest part of the building or structure on which the point of emission is located is greater than twenty metres above grade and the point of emission is less than twenty metres above the highest part of the building or structure on which it is located, or
(*see figure 8*)

(iii) there is a building or structure upwind from the point of emission such that,

1. the height above grade of the building or structure is greater than the height above grade at the point of emission, and

2. the building or structure is a horizontal distance of 100 metres or less from the point of emission,
(*see figures 9 and 10*)

the following formula shall be applied:
(*see notes 1 and 3*)

$$K = \frac{10^6 \times Q \times F}{31.4 \times \sigma_y \times \sigma_z} \times \exp\left[-\frac{1}{2}\left(\frac{Y}{\sigma_y}\right)^2\right] \cdot \left\{\exp\left[-\frac{1}{2}\left(\frac{Z-H}{\sigma_z}\right)^2\right] + \exp\left[-\frac{1}{2}\left(\frac{Z+H}{\sigma_z}\right)^2\right]\right\}$$

Where: K is the half hour average concentration of the contaminant at the point of impingement in micrograms per cubic metre

Q is the rate of emission in grams per second of the contaminant
(*see note 2*)

exp is the exponential function where e = 2.7183

Y is the perpendicular distance in metres between the point of impingement and a vertical plane parallel to the chosen direction of the wind through the wind-oriented centre of the building or structure on which the point of emission is located
(*see figures 11 and 12*)
(*see notes 4 and 5*)

Z is the difference in height, in metres, between the point of impingement and the ground level at or beneath the point of impingement

H is a function of the height, in metres, above grade of the building or structure on which the point of emission is located



F is a factor related to the atmospheric stability of the air

$\sigma_y$ is a function which defines the amount of dispersion of the contaminant in a horizontal direction at the point of impingement

$\sigma_z$ is a function which defines the amount of dispersion of the contaminant in a vertical direction at the point of impingement

Determination of K 1. Two values for K shall be determined using the formula in clause *b*.

2. The maximum value obtained for K shall be applied in this Regulation.

Value number 1 for K is determined as follows:

H is 0.67 times the height, in metres, above grade of the building or structure on which the point of emission is located

F is 0.6

$\sigma_y$ is determined as follows:

$\sigma'_y = \frac{A}{4.3}$ where A is the greatest width, in metres, presented to the wind by the building or structure on which the point of emission is located, measured horizontally and perpendicularly to the direction of the wind
(*see figure 13*)

where $\sigma'_y$ is equal to or less than 243.45

$$\text{calculate } X'_y = 6.554\ \sigma'^{\,1.08172}_y$$

where $\sigma'_y$ is greater than 243.45

$$\text{calculate } X'_y = 4.524\ \sigma'^{\,1.14616}_y$$

and calculate

$X_y = G + X'_y$ where G is the horizontal distance, in metres, between the wind-oriented centre of the building or structure on which the point of emission is located and the line where vertical planes, one through the wind-oriented centre of the building or structure on which the point of emission is located and parallel to the chosen direction of the wind, and the other through the point of impingement, meet at right angles.
(*see figure 14*)
(*see note 6*)

where the value of $X_y$ is equal to or less than 2500

$$\text{calculate } \sigma_y = 0.176\ X_y^{0.92445}$$

where the value of $X_y$ is greater than 2500

$$\text{calculate } \sigma_y = 0.268\ X_y^{0.87248}$$

$\sigma_z$ is determined as follows:

$\sigma'_z = \frac{B}{2.15}$ where B is the height above ground in metres of the highest part of the building or structure on which the point of emission is located.

where $6'_Z$ is equal to or less than 141.41

calculate $X'_Z = 12.027\ 6'^{1.08783}_Z$

where $6'_Z$ is greater than 141.41

calculate $X'_Z = 10.418\ 6'^{1.10419}_Z$

and calculate $X_Z = G + X'_Z$ where G has the same value for G as used in the equation

$X_Y = G + X'_Y$

Where the value of $X_Z$ is equal to or less than 2500

calculate $6_Z = 0.106\ X_Z^{0.91926}$

where $X_Z$ is greater than 2500

calculate $6_Z = 0.120\ X_Z^{0.90564}$

Value number 2 for K is determined as follows:

Where: H is 0.67 times the height in metres above grade of the building or structure on which the point of emission is located

F is 0.8

$6_Y$ is determined as follows:

$6'_Y = \frac{A}{4.3}$ where $6'_Y$ has the same value as $6'_Y$ determined for value number 1 for K

where $6'_Y$ is equal to or less than 49.01

calculate $X'_Y = 10.686\ 6'^{1.07455}_Y$

where $6'_Y$ is greater than 49.01 and less than 409.32

calculate $X'_Y = 10.020\ 6'^{1.08889}_Y$

where $6'_Y$ is equal to or greater than 409.32

calculate $X'_Y = 6.760\ 6'^{1.15556}_Y$

and calculate

$X_Y = G + X'_Y$ where G has the same value for G determined for value number 1 for K

where the value of $X_Y$ is equal to or less than 700

calculate $6_Y = 0.110\ X_Y^{0.93062}$

where $X_Y$ is greater than 700 and less than 7000

calculate $6_Y = 0.120\ X_Y$

where $X_Y$ is equal to or greater than 7000

calculate $6_Y = 0.191\ X_Y^{0.86538}$

$6_Z$ is determined as follows.

$6'_Z = \frac{B}{2.15}$ where B is the vertical height above grade of the highest part of the building or structure on which the point of emission is located.

where $6'_Z$ is equal to or less than 24.64

calculate $X'_Z = 16.524\ 6'^{1.16918}_Z$

where $6'_Z$ is greater than 24.64 and less than 110.75

calculate $X'_Z = 4.984\ 6'^{1.53965}_Z$

where $6'_Z$ is equal to or greater than 110.75

calculate $X'_Z = 1.090\ 6'^{1.85677}_Z$

and calculate

$X_Z = G + X'_Z$ where G has the same value for G determined for value number 1 for K

where $X_Z$ is equal to or less than 700

calculate $6_Z = 0.091\ X_Z^{0.8553}$

where $X_Z$ is greater than 700 and less than 7000

calculate $6_Z = 0.352\ X_Z^{0.6495}$

where $X_Z$ is equal to or greater than 7000

calculate $6_Z = 0.955\ X_Z^{0.53857}$

NOTES:

1. Where a building or structure adjacent to the building or structure on which the point of emission is located is within five metres of that building or structure, it shall be treated as being part of the building or structure on which the point of emission is located.

2. Where a situation exists as described in subclauses i, ii and iii of clause *b* all points of emission of a contaminant shall be considered as if the total emission comes from the building such that the building itself is a point of emission.

3. Where K yields a value greater than the concentration of the contaminant at the point of emission, the concentration of the contaminant at the point of emission shall be deemed to be the value of K.

4. The wind-oriented centre of a building or structure is obtained by circumscribing the plan view of the building or structure with the smallest possible rectangle, two sides of which are parallel to the chosen wind direction, and the intersection of the diagonals of this rectangle is the wind-oriented centre.

5. Where an emission or emissions is from only one building or structure, the wind direction shall be that direction that is parallel to a line joining the wind-oriented centre of the building or structure and the point of impingement and the value of the exponential expression involving Y is one.
(In such a situation the value of Y becomes zero)

6. Where emissions from only one building or structure are being evaluated the wind direction shall be so chosen that the value of G is the horizontal distance in metres between the point of impingement and a vertical line through the wind-oriented centre of the building or structure on which the point of emission is located.
(*see figure 15*)

(*c*) where the point of emission is not affected by any of the conditions described in subclauses i, ii or iii of clause *a* or subclauses i, ii or iii of clause *b*, the following formula shall be applied:
(*see figures 16, 17, 18 and 19*)

$$K = \frac{10^6 \times Q \times F}{6.28 \times \sigma_y \times \sigma_z \times U} \times \exp\left[-\frac{1}{2}\left(\frac{Y}{\sigma_y}\right)^2\right] \cdot \left\{\exp\left[-\frac{1}{2}\left(\frac{Z-H}{\sigma_z}\right)^2\right] + \exp\left[-\frac{1}{2}\left(\frac{Z+H}{\sigma_z}\right)^2\right]\right\}$$

Where: K is the half hour average concentration of the contaminant at the point of impingement in micrograms per cubic metre

Q is the rate of emission in grams per second of the contaminant

U is the wind speed in metres per second

exp is the exponential function where e = 2.7183

Y is the straight line distance in metres between the point of impingement and a vertical plane through the point of emission in the chosen direction of the wind
(*see figure 20*)
(*see note 3*)

Z is the difference in height, in metres, between the point of impingement and the ground level at or beneath the point of impingement

H is the effective height of the emission of a contaminant

F is a factor related to the atmospheric stability of the air

$\sigma_y$ is a function which defines the amount of dispersion of the contaminant in a horizontal direction at the point of impingement

$\sigma_z$ is a function which defines the amount of dispersion of the contaminant in a vertical direction at the point of impingement

Determination of K

1. Two values for K shall be determined using the formula in clause *c*.

2. The maximum value obtained for K shall be applied in this Regulation.
(*see note 1*)

Value number 1 for K is determined as follows:

Where: U is the speed of the wind in metres per second
(*see note 2*)

H is determined as follows:

$$H = h + \left(\frac{v_s d}{u}\right) \times \left[1.5 + 2.68\,\frac{(T_s - 283)d}{T_s}\right]$$



$v_s$ is the speed in metres per second in an upward vertical direction of the contaminant gas stream at the point of emission to the atmosphere
(*see note 4*)

d is the diameter in metres of a circle of equivalent area to that area through which the contaminant gas stream enters the air

u is the speed of the wind in metres per second
(*see note 5*)

$T_s$ is the temperature in degrees Kelvin (273° + temperature in Degrees Celsius) of the contaminant gas stream at the point of emission

F is 0.6

$\sigma_y$ is determined as follows:

Calculate X where X is the horizontal distance in metres between the point of emission and the line where vertical planes, one through the point of emission and parallel to the chosen direction of the wind and the other through the point of impingement, meet at right angles.
(*see figure 21*)
(*see notes 6 and 7*)

Where the value of X is equal to or less than 2500

$$\sigma_y = 0.176X^{0.92445}$$

When the value of X is greater than 2500

$$\sigma_y = 0.268X^{0.87248}$$

$\sigma_z$ is determined as follows:

When the value of X is determined in the calculation of $\sigma_y$ is equal to or less than 2500

$$\sigma_z = 0.106X^{0.91926}$$

When the value of X is greater than 2500

$$\sigma_z = 0.120X^{0.90564}$$

(*see note 8*)

Value number 2 for K is determined as follows:

H has the same value for H as determined for value number 1 for K

F is 0.8

$\sigma_y$ is determined as follows:

Where X has the same value for X as determined for value number 1 for K

Where the value of X is equal to or less than 700

$$\sigma_y = 0.110\ X^{0.93062}$$

Where the value of X is greater than 700 but less than 7000

$$\sigma_y = 0.120\ X^{0.91837}$$

Where the value of X is equal to or greater than 7000

$$\sigma_y = 0.191\ X^{0.86538}$$

$\sigma_z$ is determined as follows:

Where X has the same value as determined in the calculation of $\sigma_y$

Where X is equal to or less than 700

$$\sigma_z = 0.091\ X^{0.8553}$$

Where X is greater than 700 but less than 7000

$$\sigma_z = 0.352\ X^{0\ 6495}$$

Where X is equal to or greater than 7000

$$\sigma_z = 0.955\ X^{0.53857}$$

(*see note 8*)

NOTES:

1. Where K yields a value greater than the concentration of the contaminant at the point of emission, the concentration of the contaminant at the point of emission shall be deemed to be the value of K.

2. The wind speed shall have a minimum value of 2.235 metres per second and a maximum value of 18.235 metres per second. A value of K shall be determined for wind speed increments of 0.5 metres per second until a maximum value of K is found.

3. Where only a single point of emission is being evaluated the wind direction shall be so chosen that the value of Y becomes zero (therefore the value of exp expression containing Y becomes equal to one.)

4. Where the value of $v_s$ is less than 7 metres per second the value of $v_s$ shall be zero.

5. The value for u shall be consistent with the values substituted directly for u in the equation used for evaluating K.

6. Where a single source of emission is being evaluated, the wind direction shall be so chosen that the value of X shall be the horizontal distance in metres between the point of impingement and a vertical line through the point of emission. (*see figure 22*)

7. In the calculation of K at ground level, the value of X shall be so chosen that the maximum value of K is found.

8. Where the value of X is given with the maximum value of K as a unit

(*d*) where the emissions of a contaminant are from more than one source, the contaminant concentrations at the point of impingement, resulting from each individual source, for the conditions set out in clauses *a*, *b* and *c* shall be added together to give an aggregate value for K.

The aggregate value of K shall be determined for all wind directions and all permissible wind speeds for value of K, where applicable. The largest aggregate K obtained shall be the value of K to apply in this Regulation. O. Reg. 873/74, s. 6.

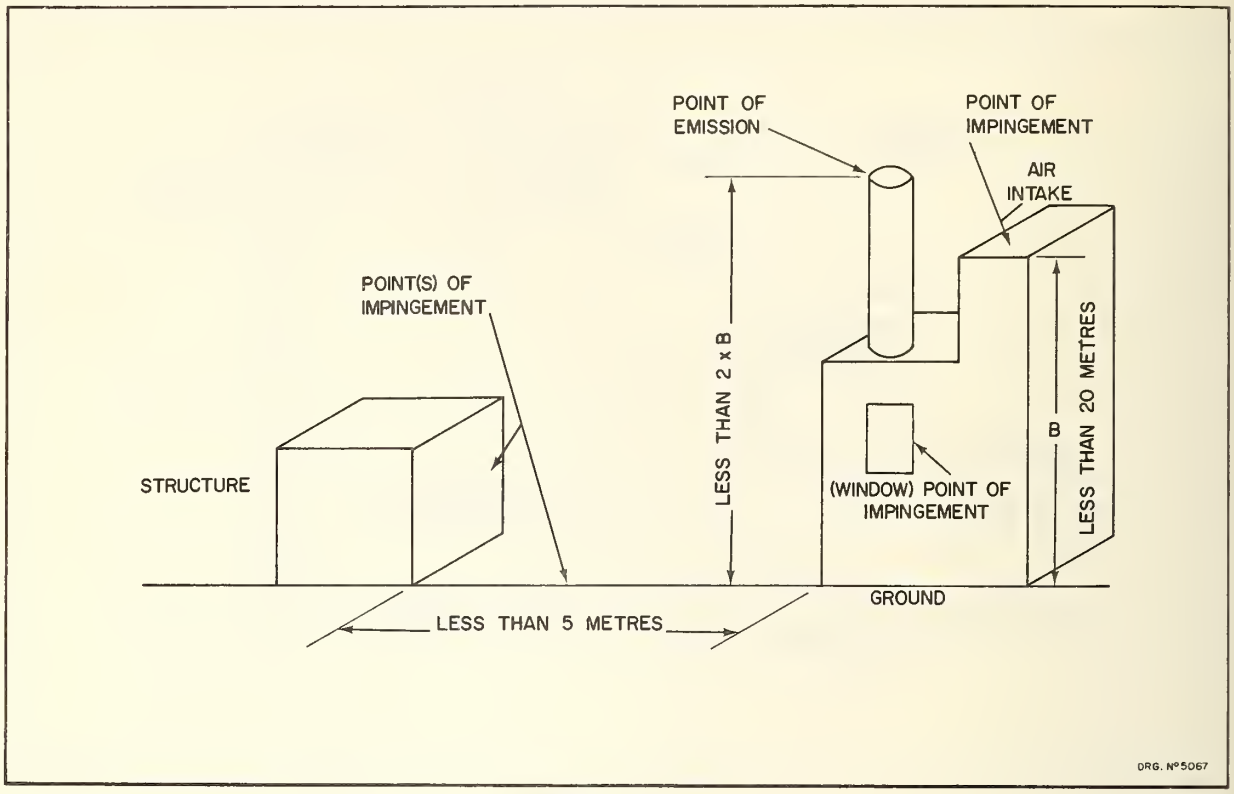



FIGURE 1.



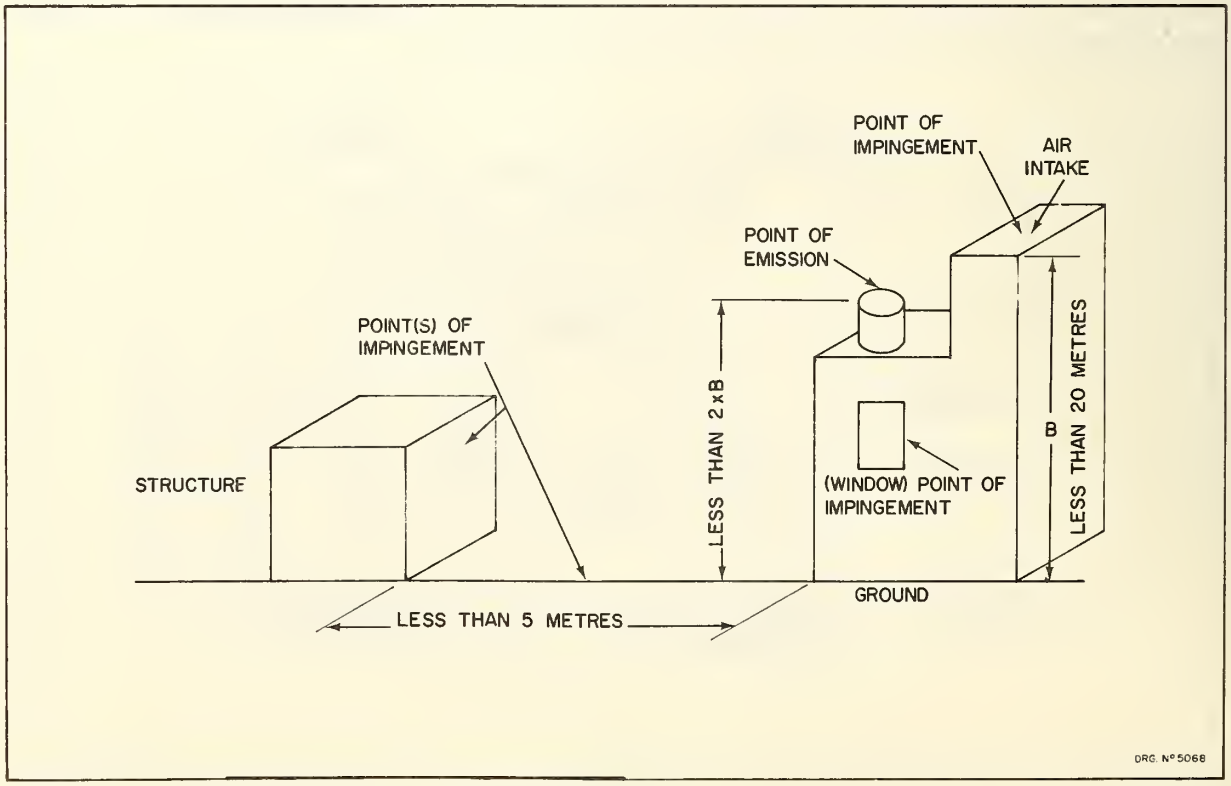
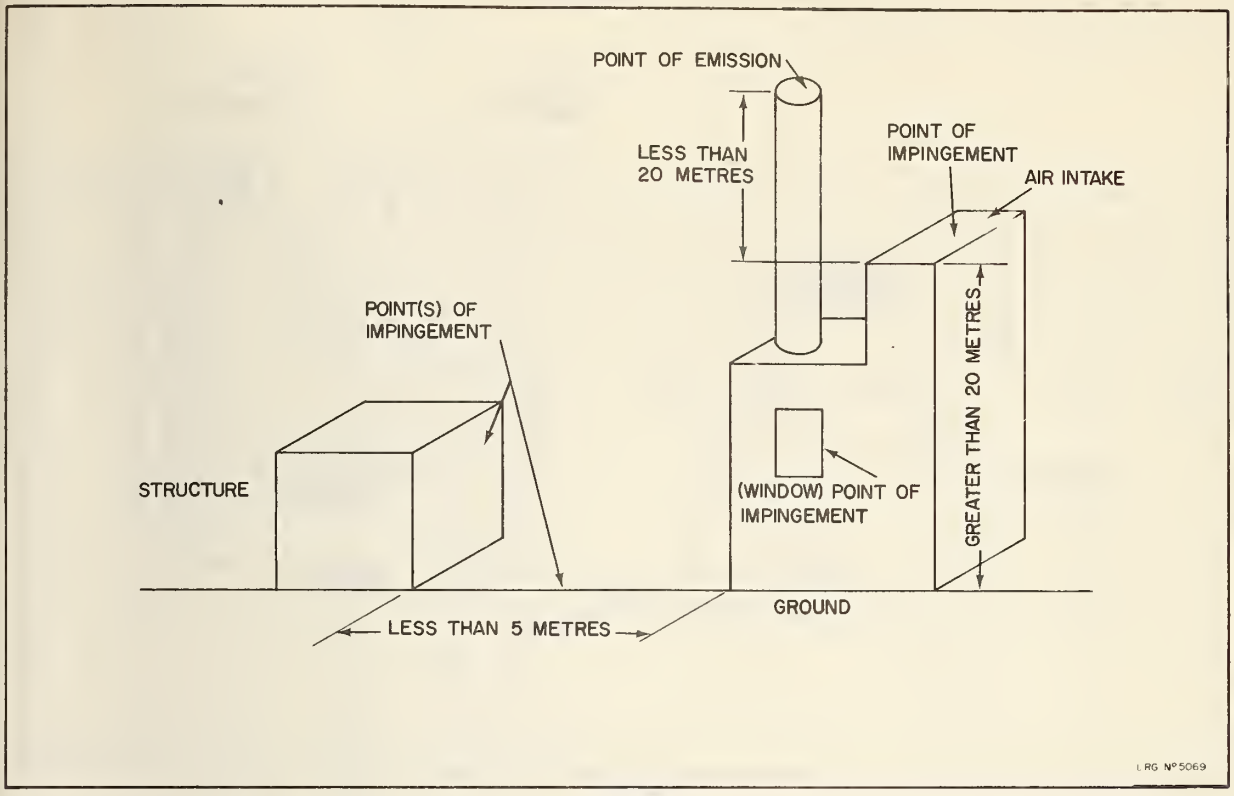



FIGURE 2.

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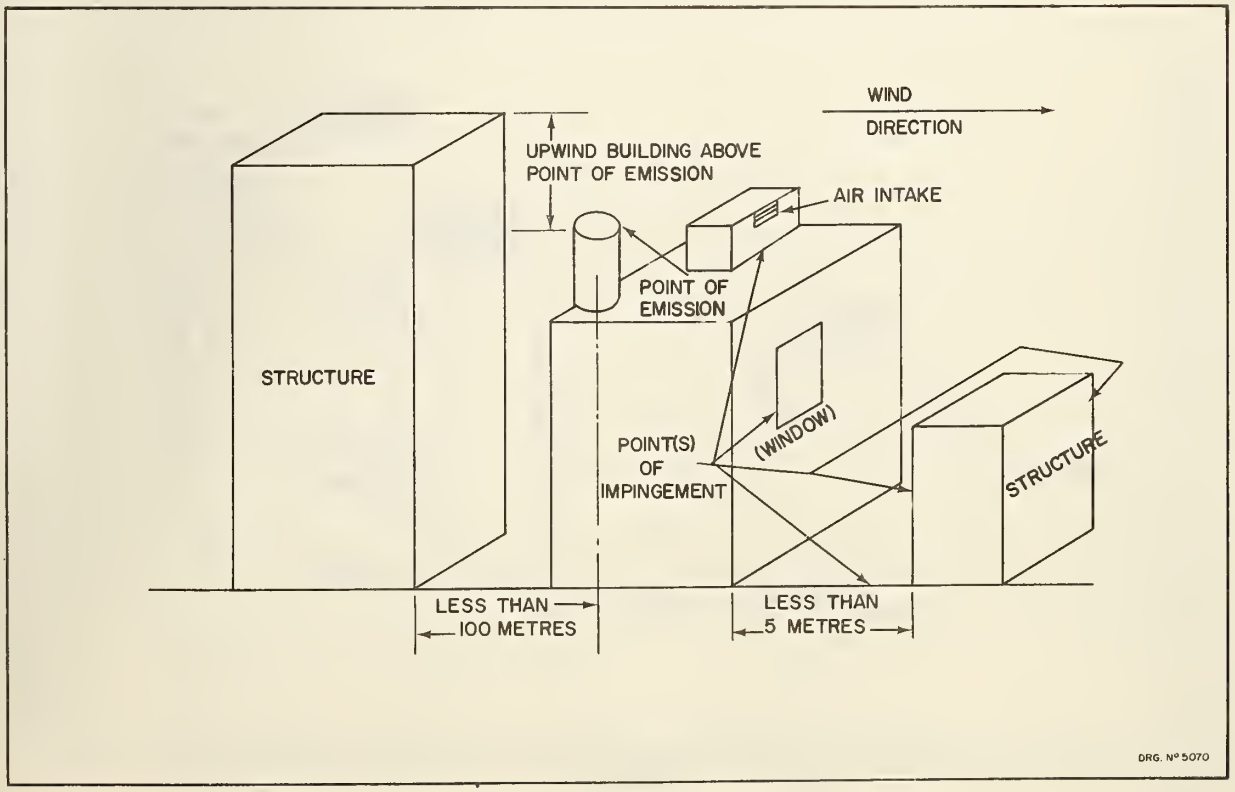



FIGURE 4.

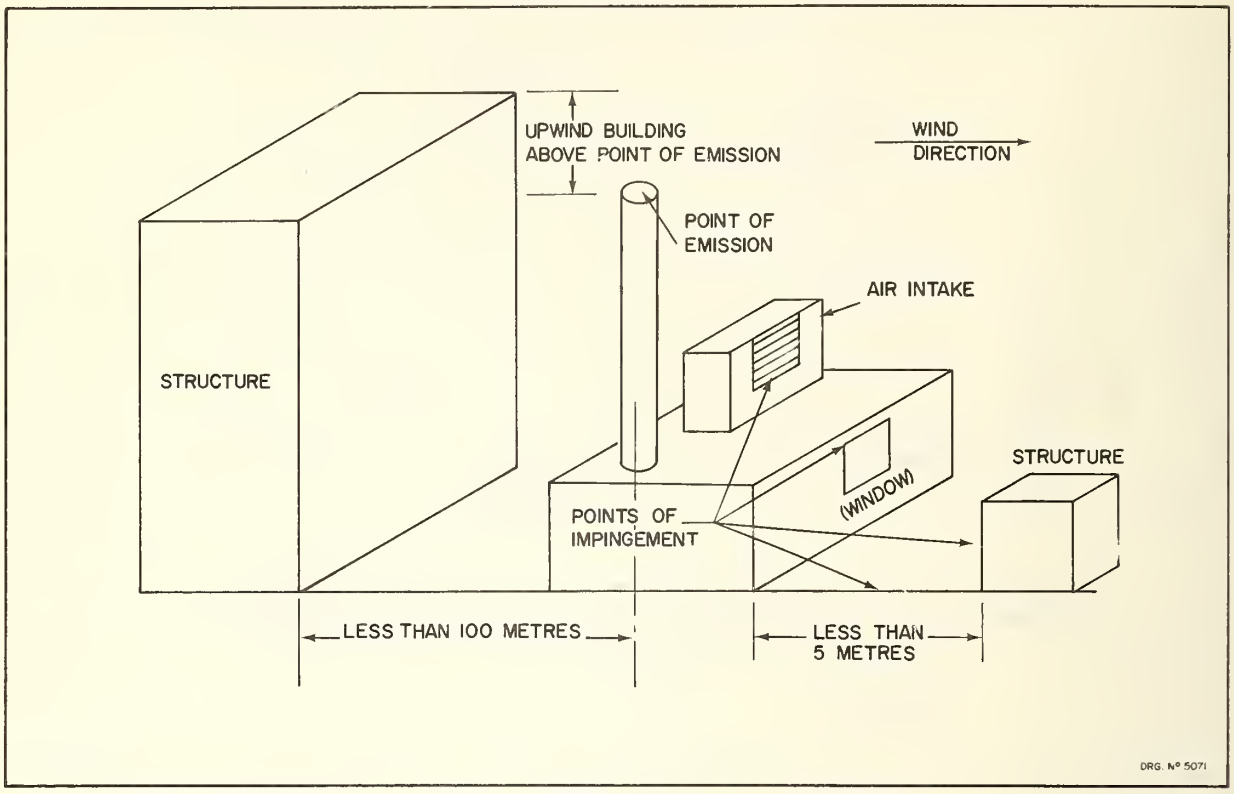
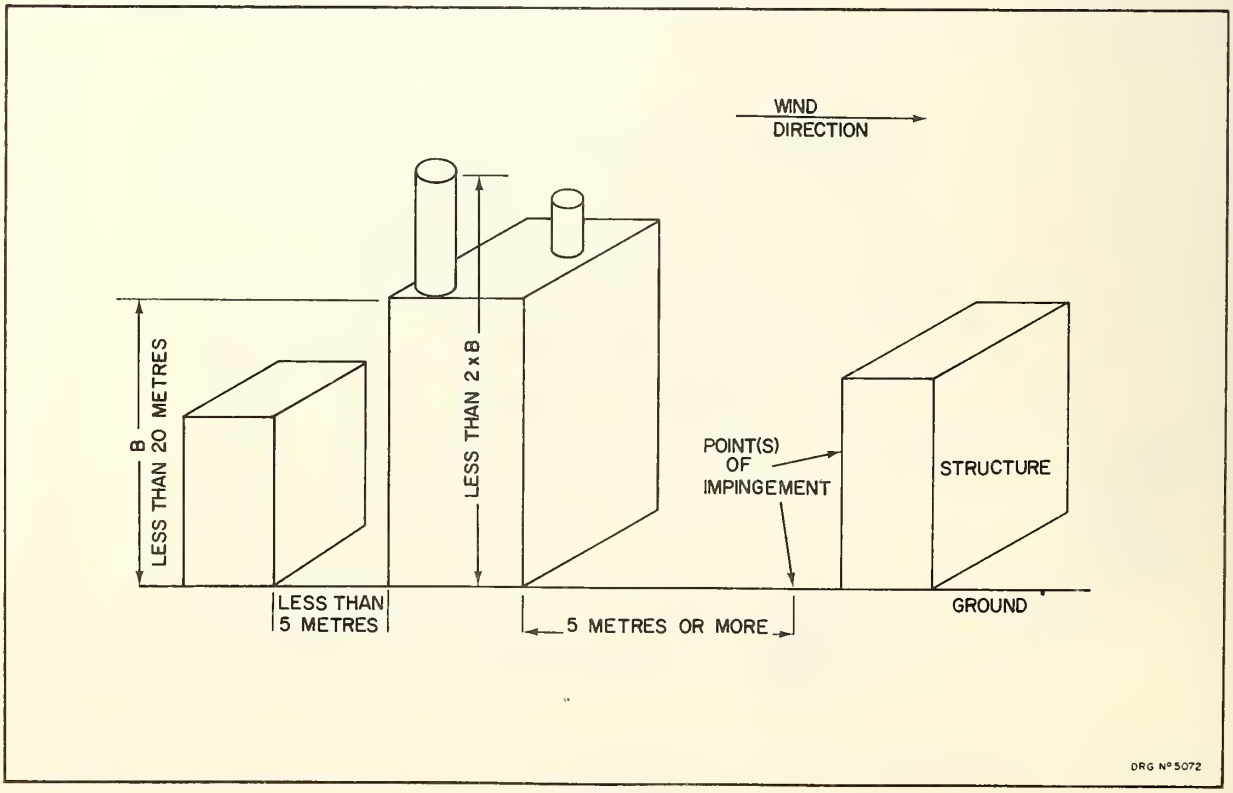



FIGURE 5.

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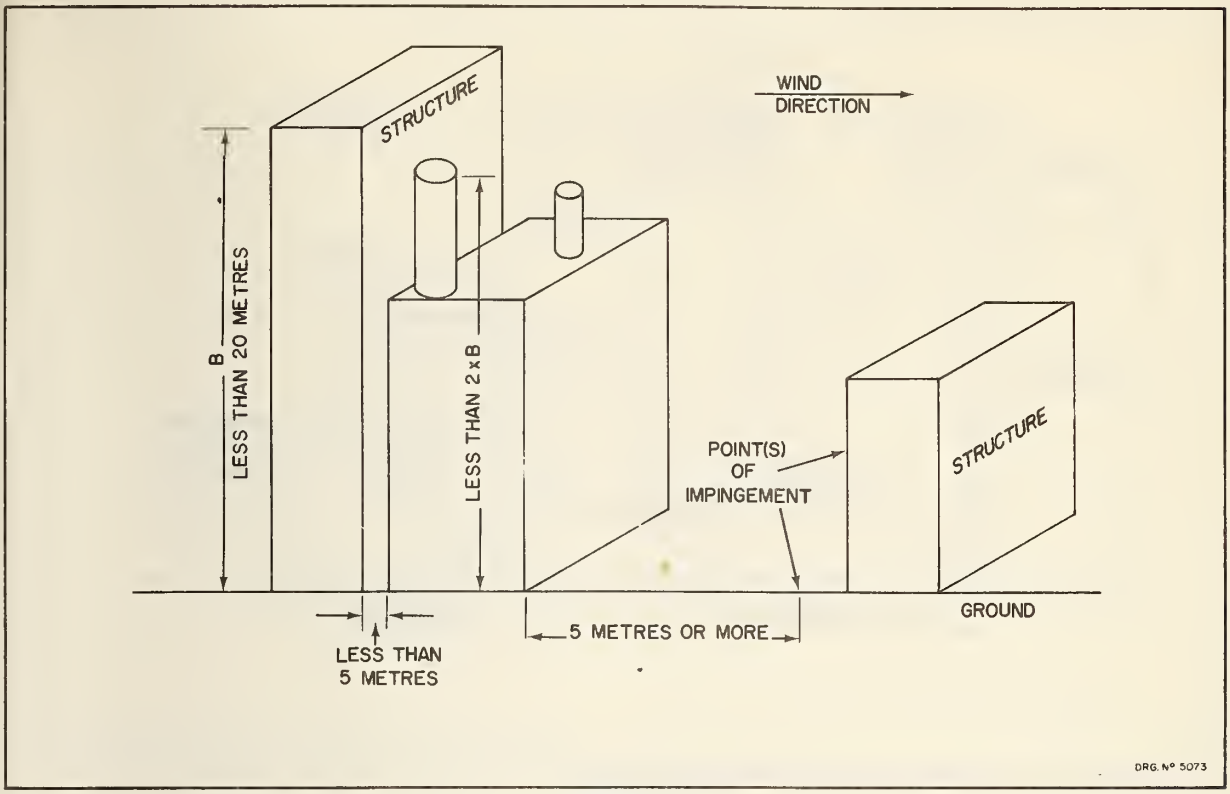
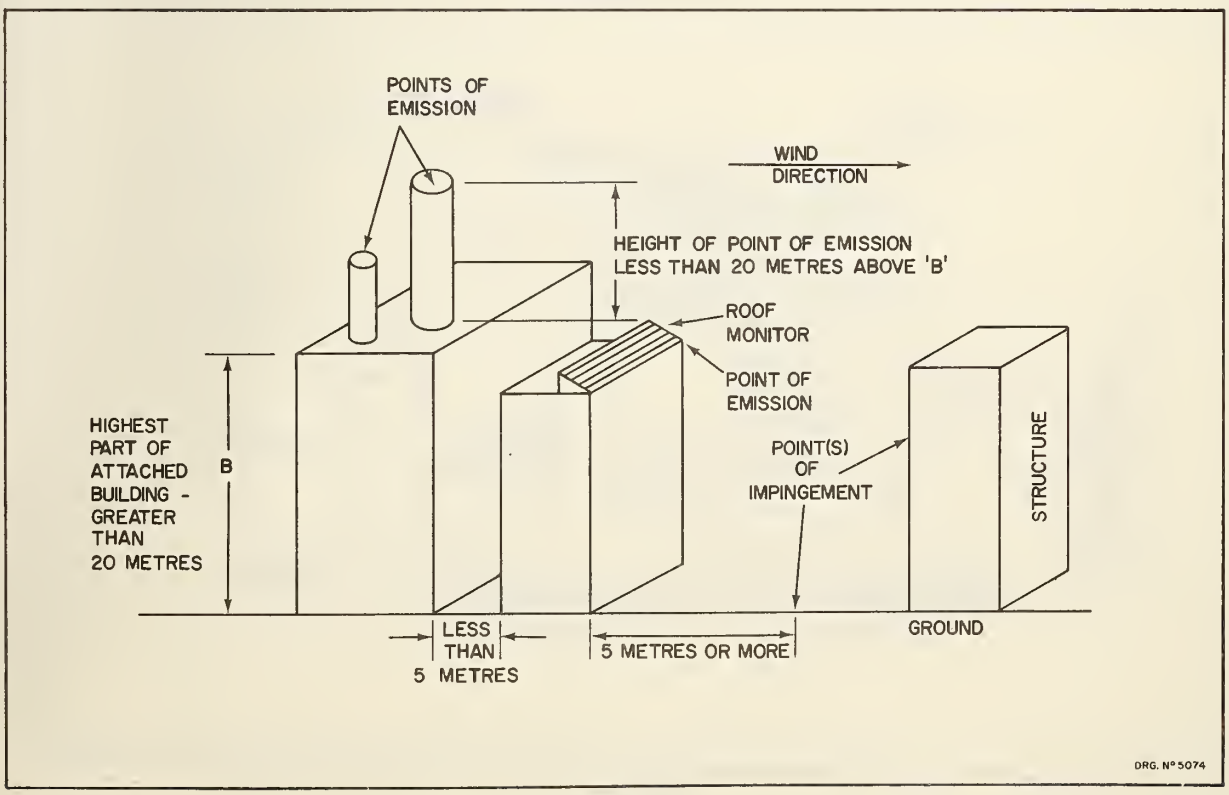



FIGURE 7.

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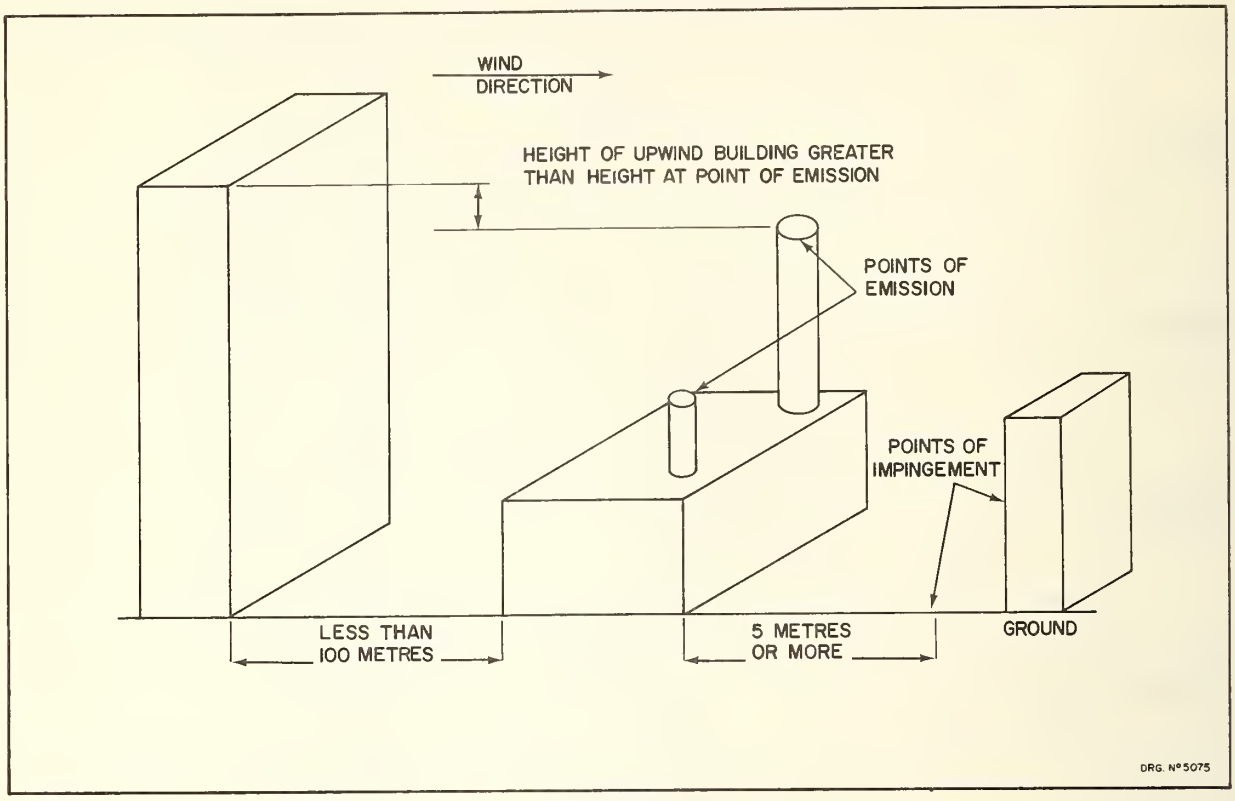


FIGURE 9.

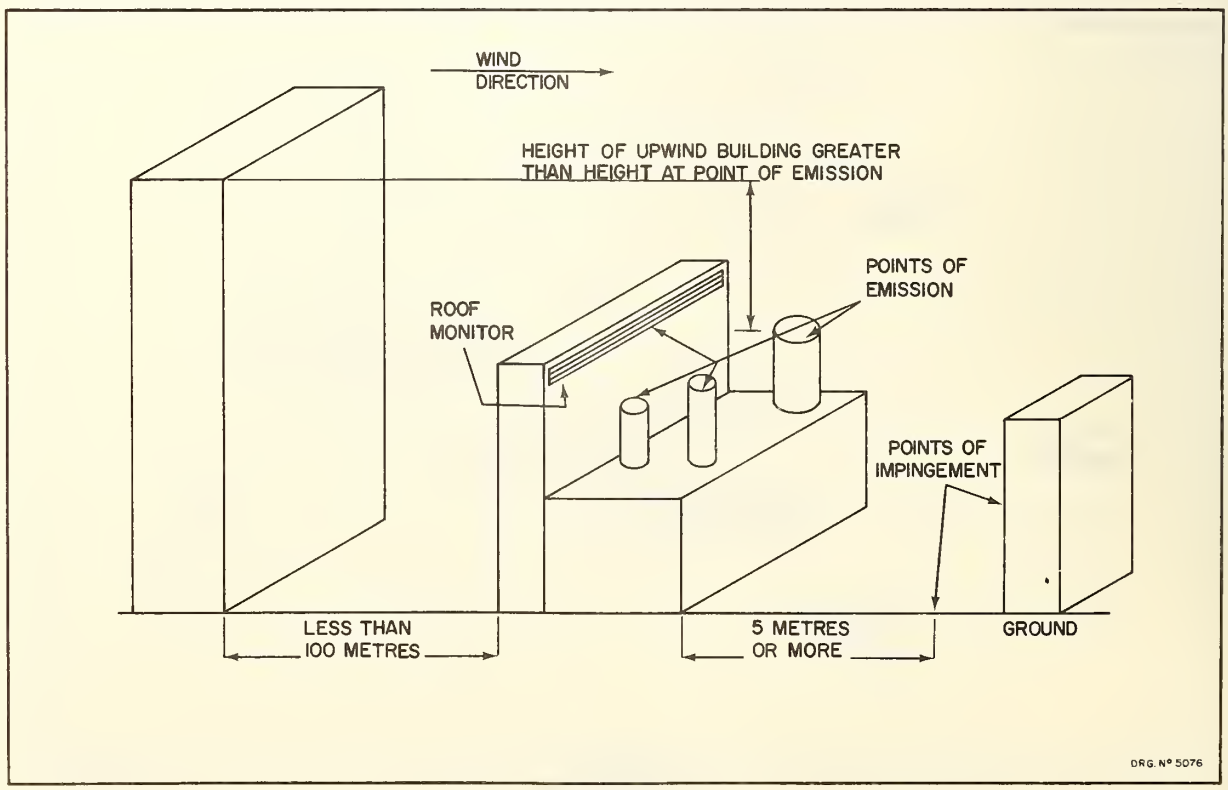


FIGURE 10.

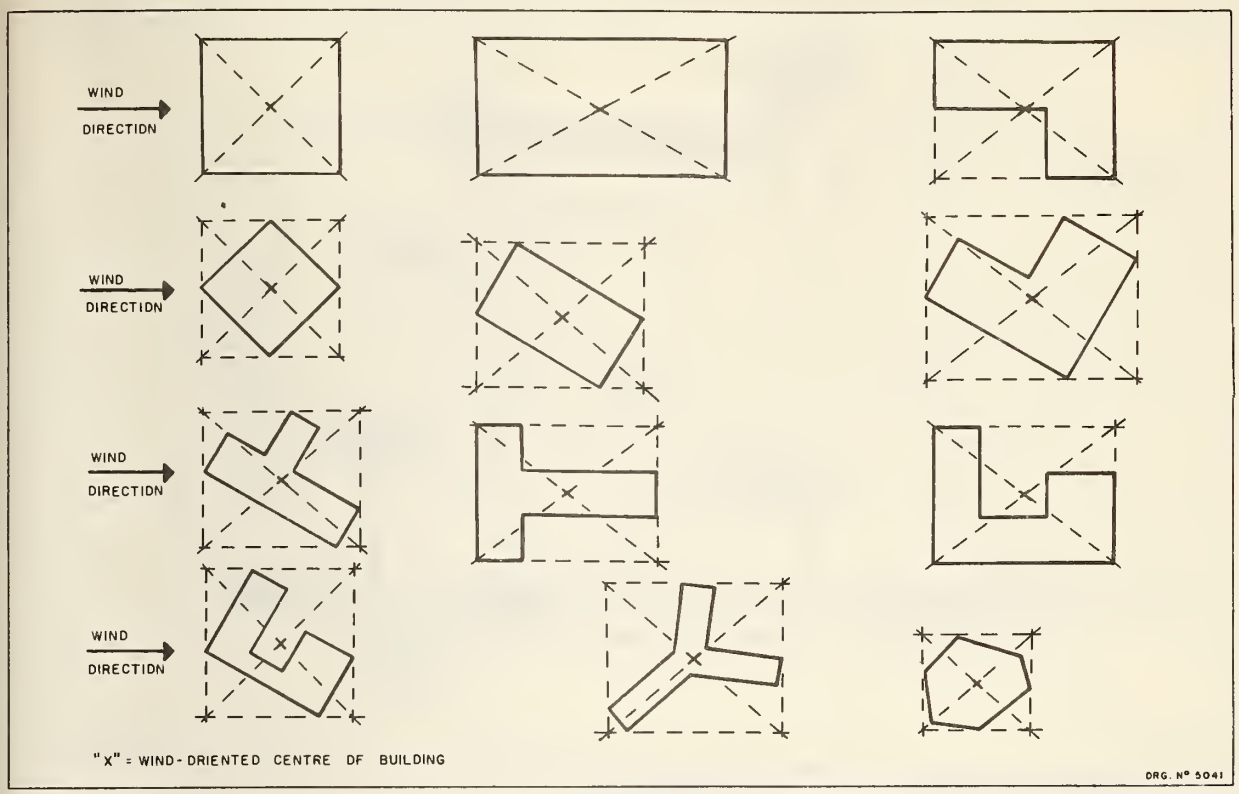


FIGURE 11.

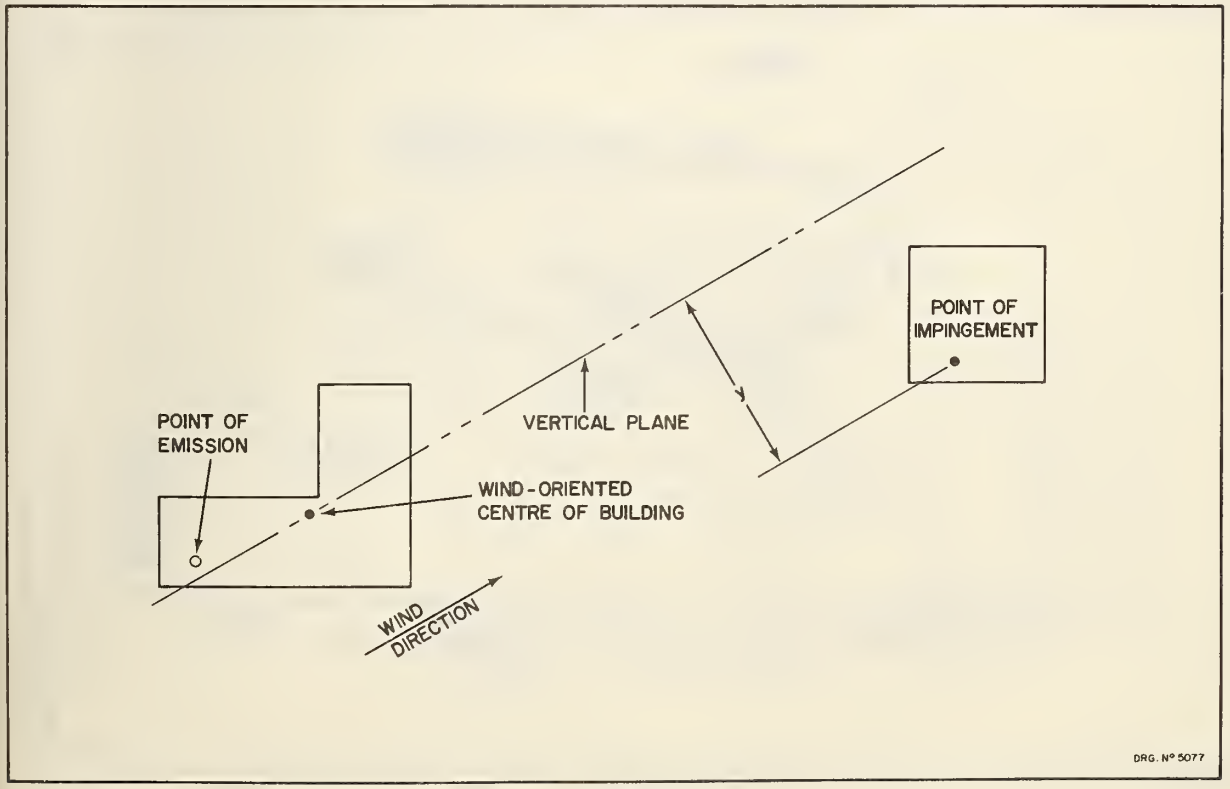


FIGURE 12.

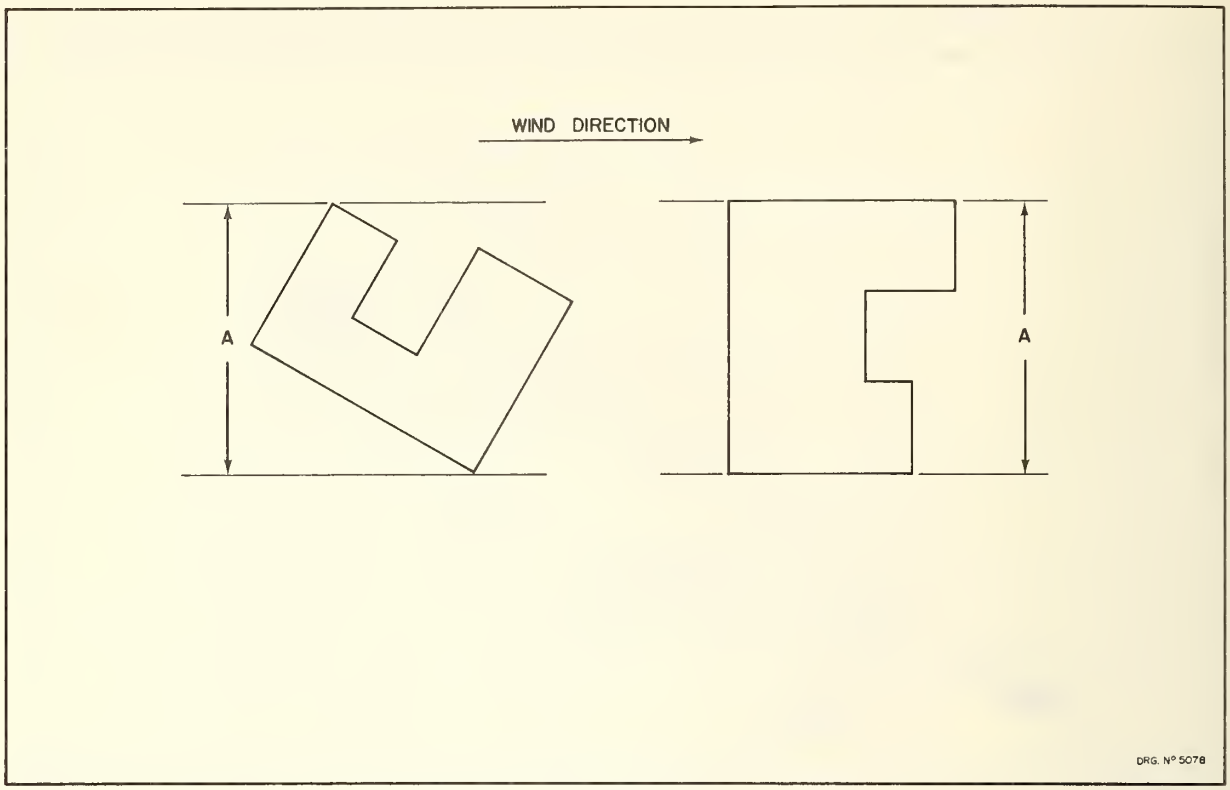


FIGURE 13.

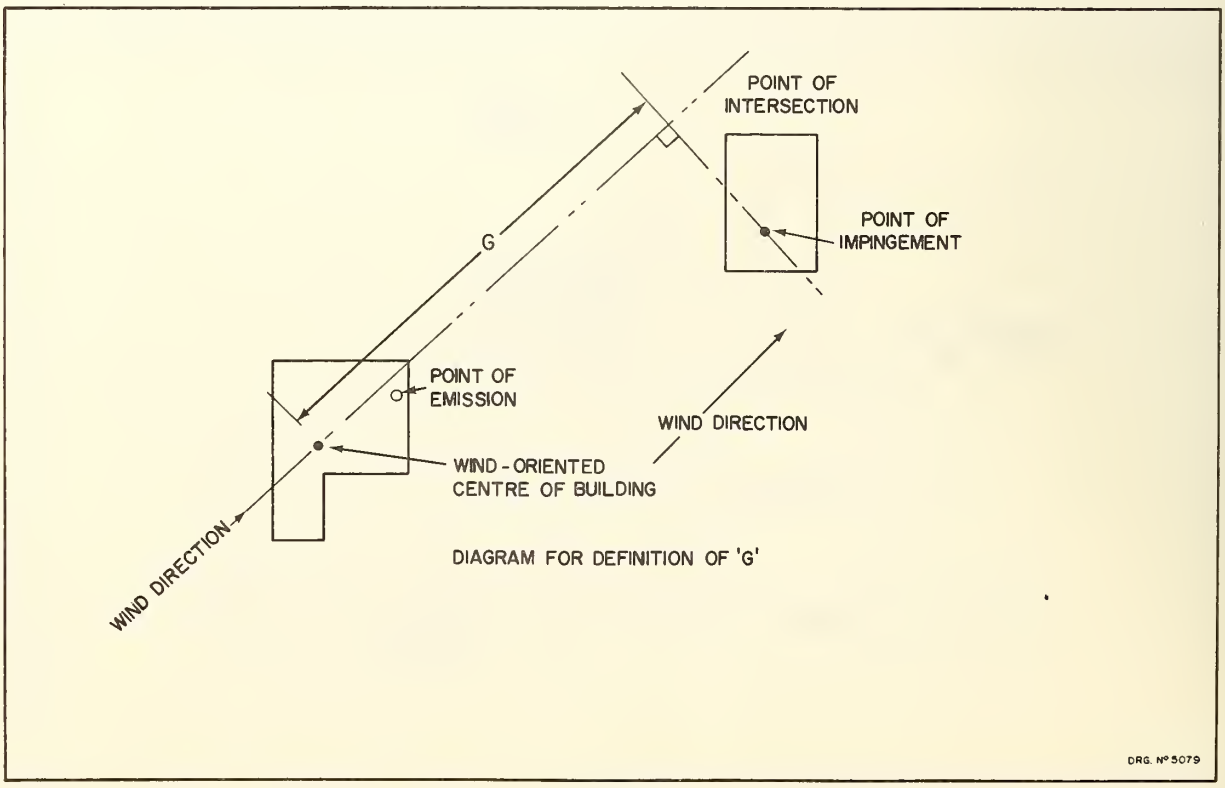


FIGURE 14.

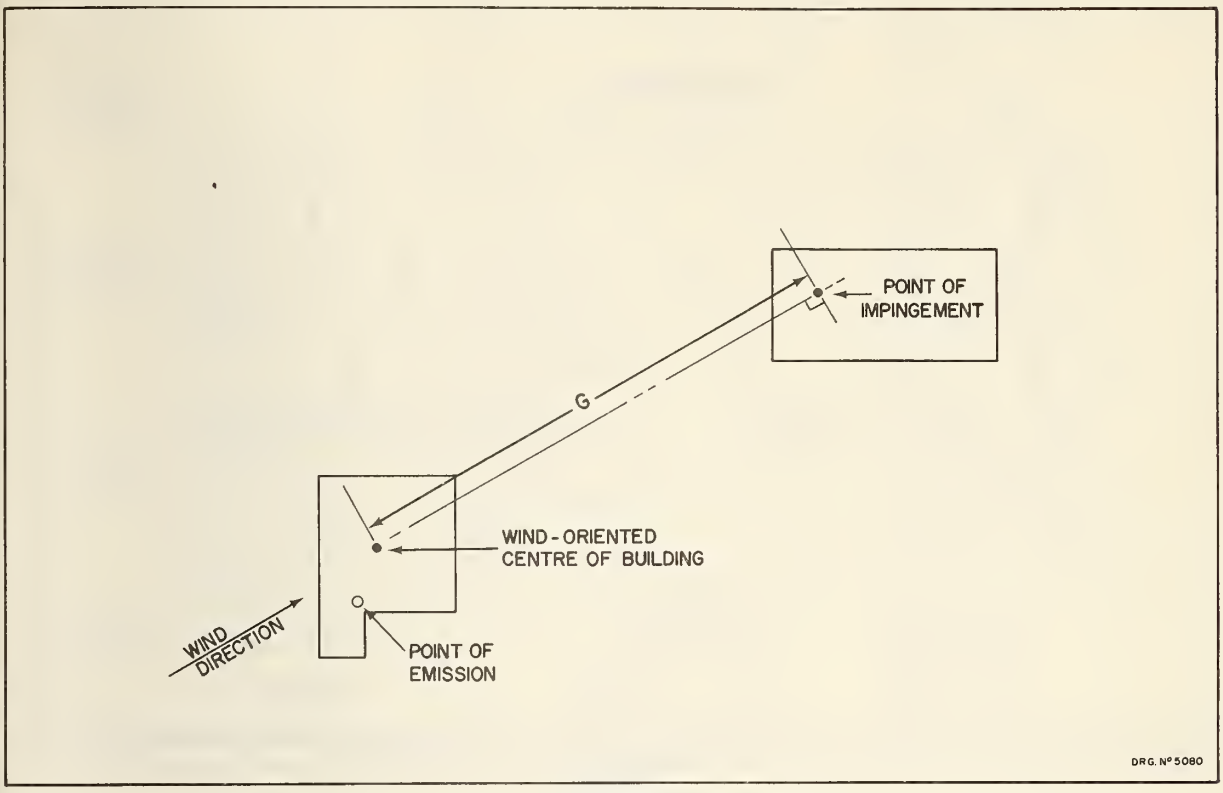


FIGURE 15.

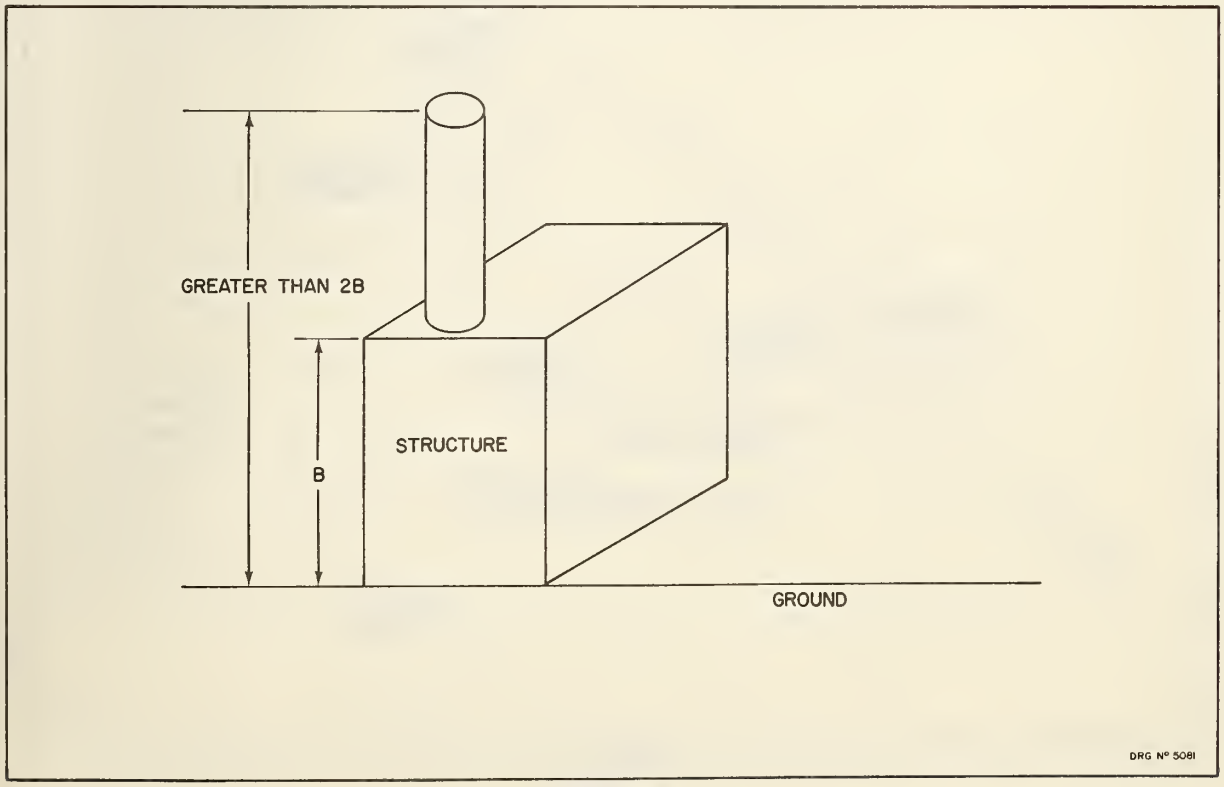


FIGURE 16.

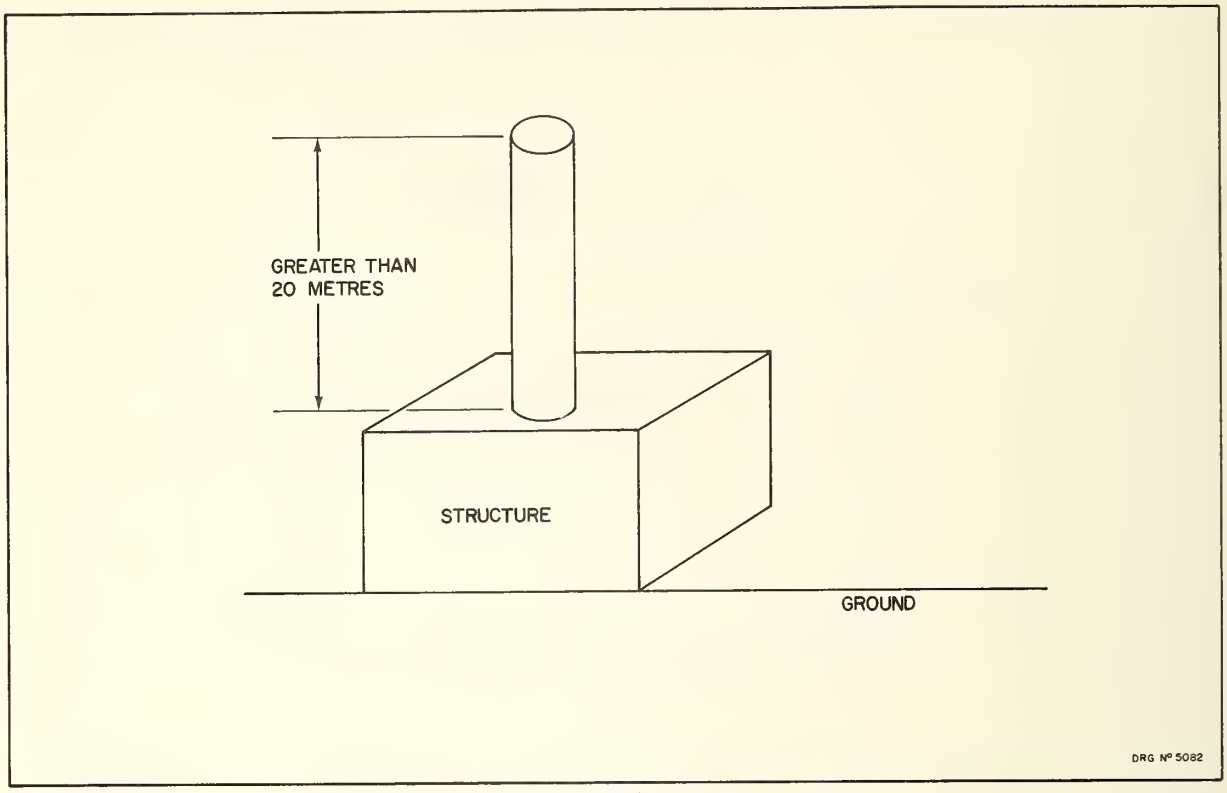


FIGURE 17.



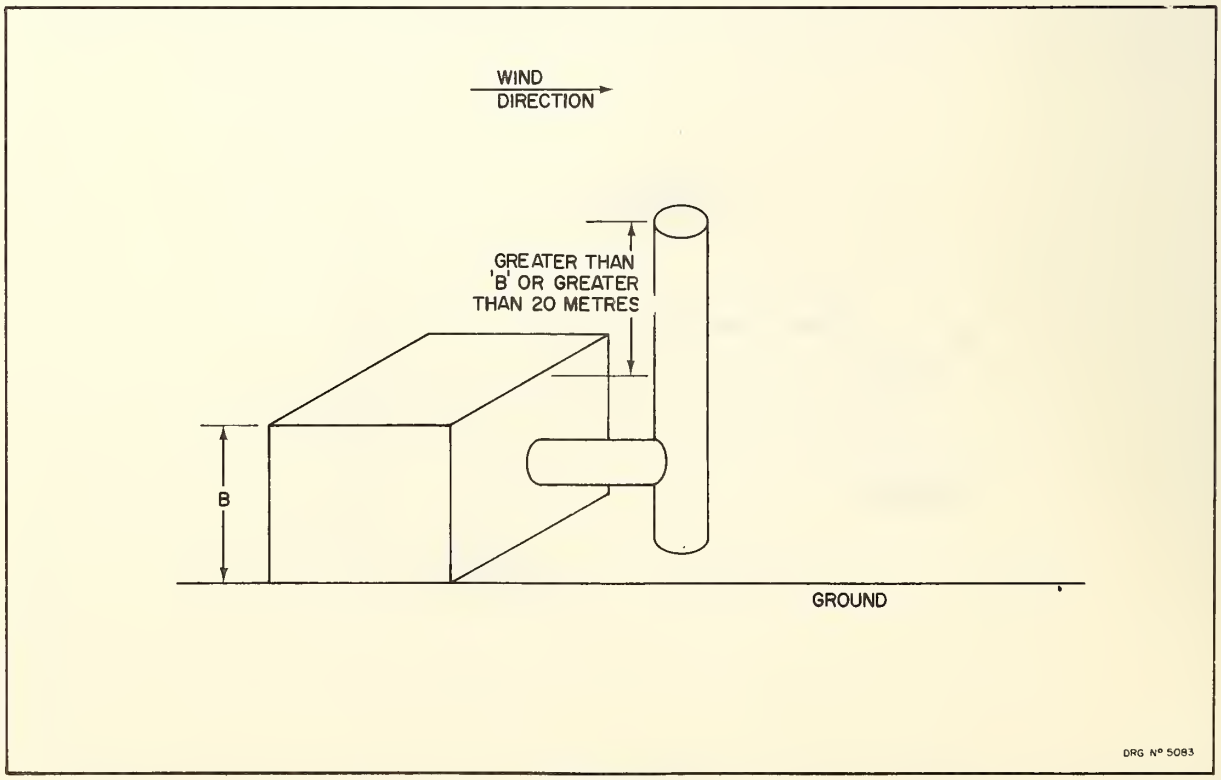


FIGURE 18.

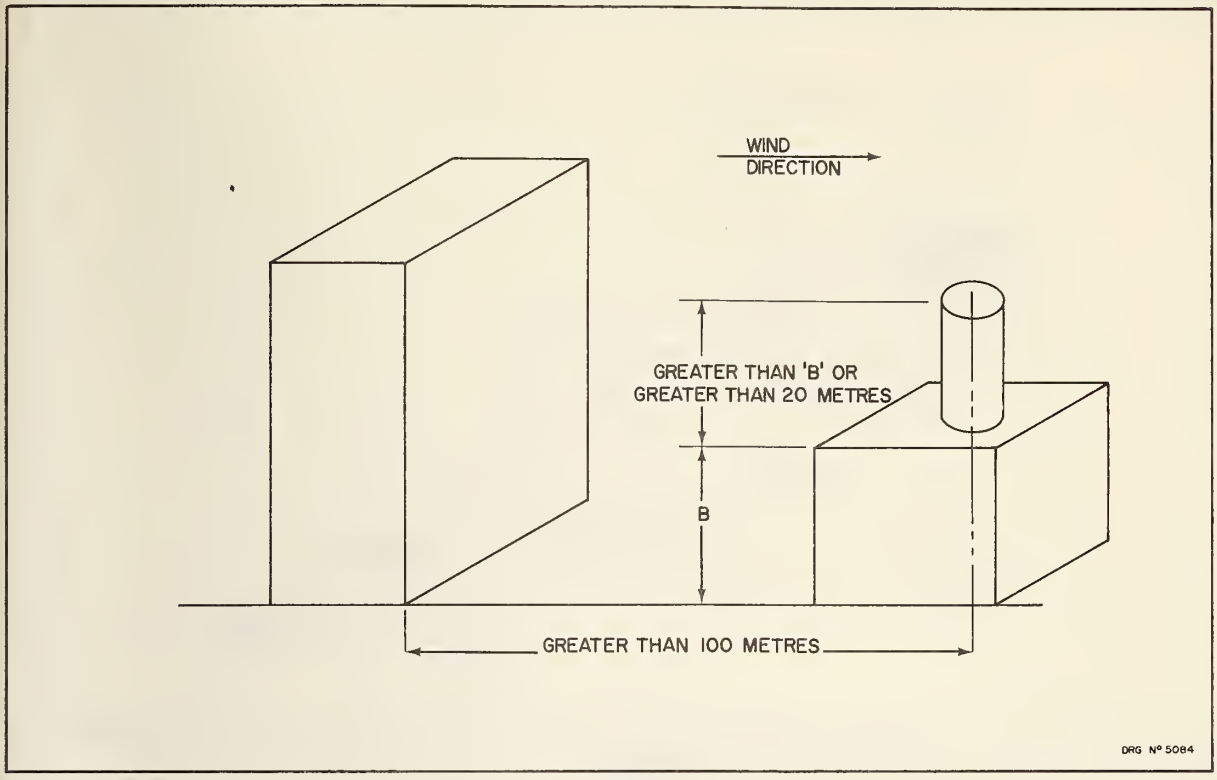


FIGURE 19.

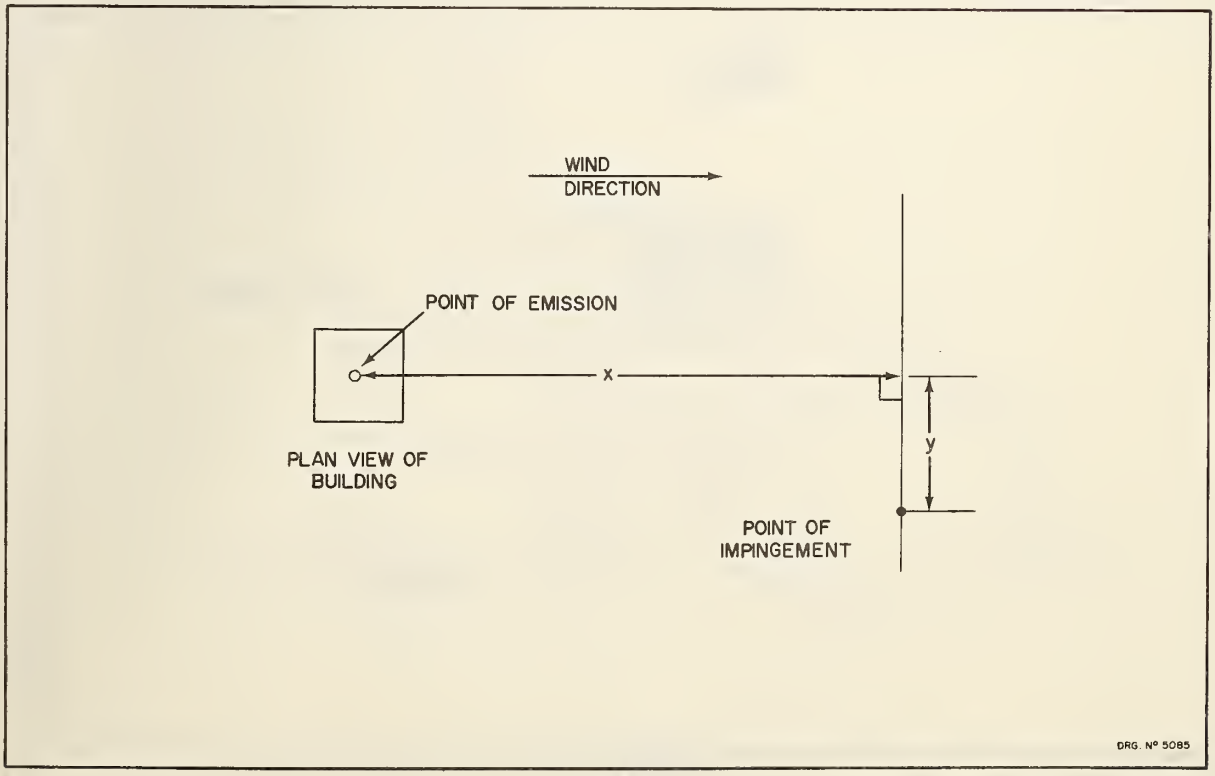


FIGURE 20.

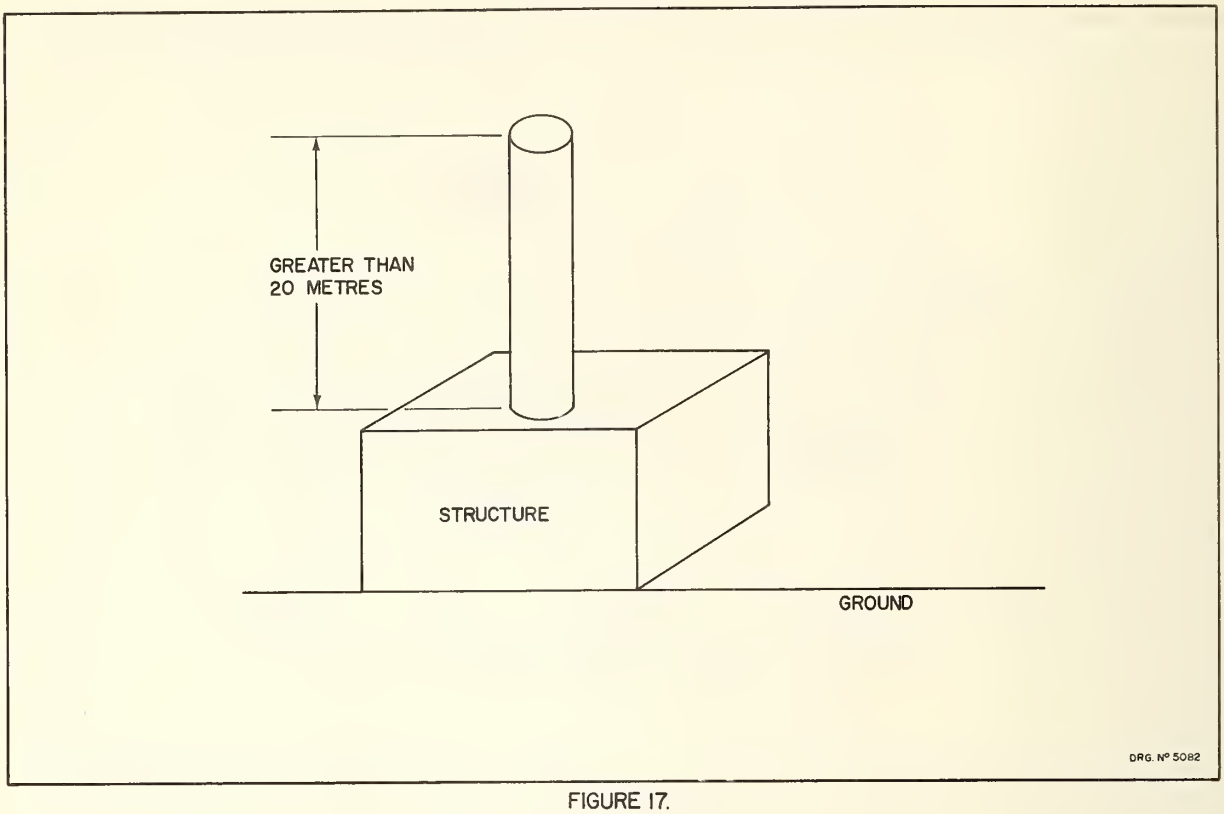


FIGURE 17.



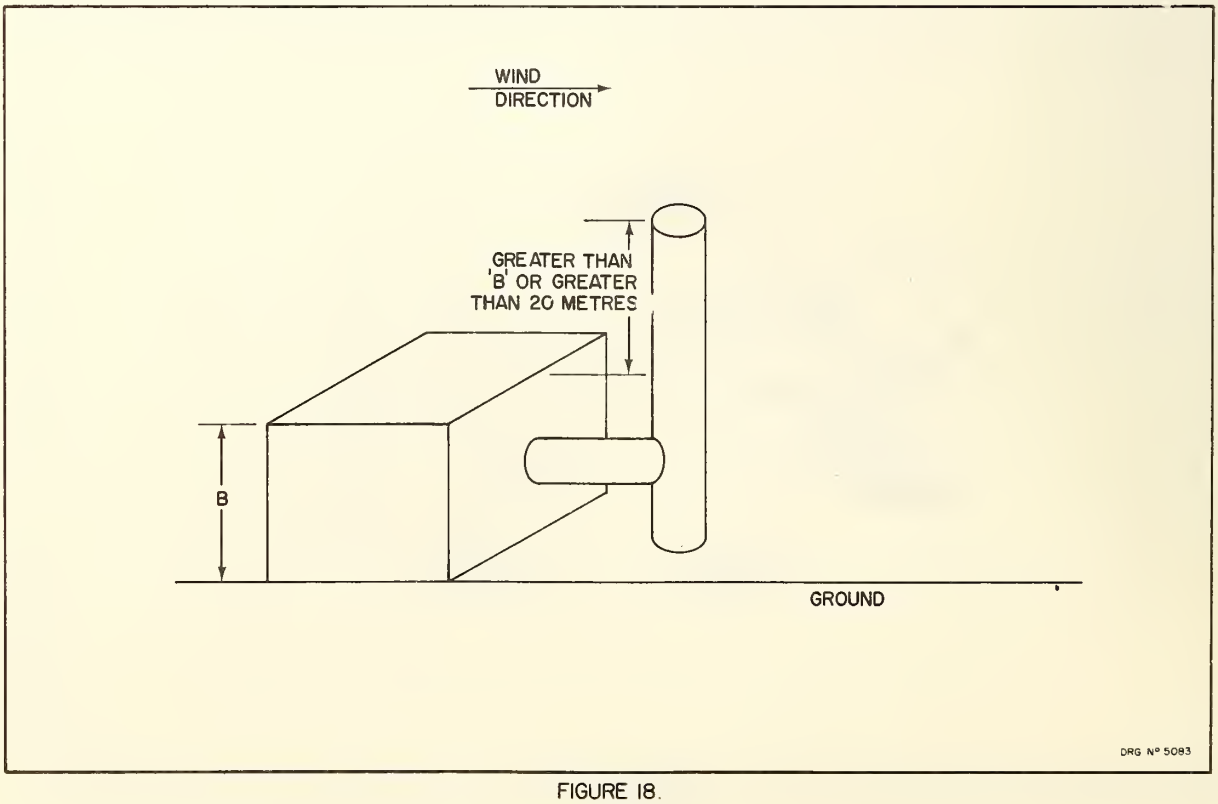


FIGURE 18.

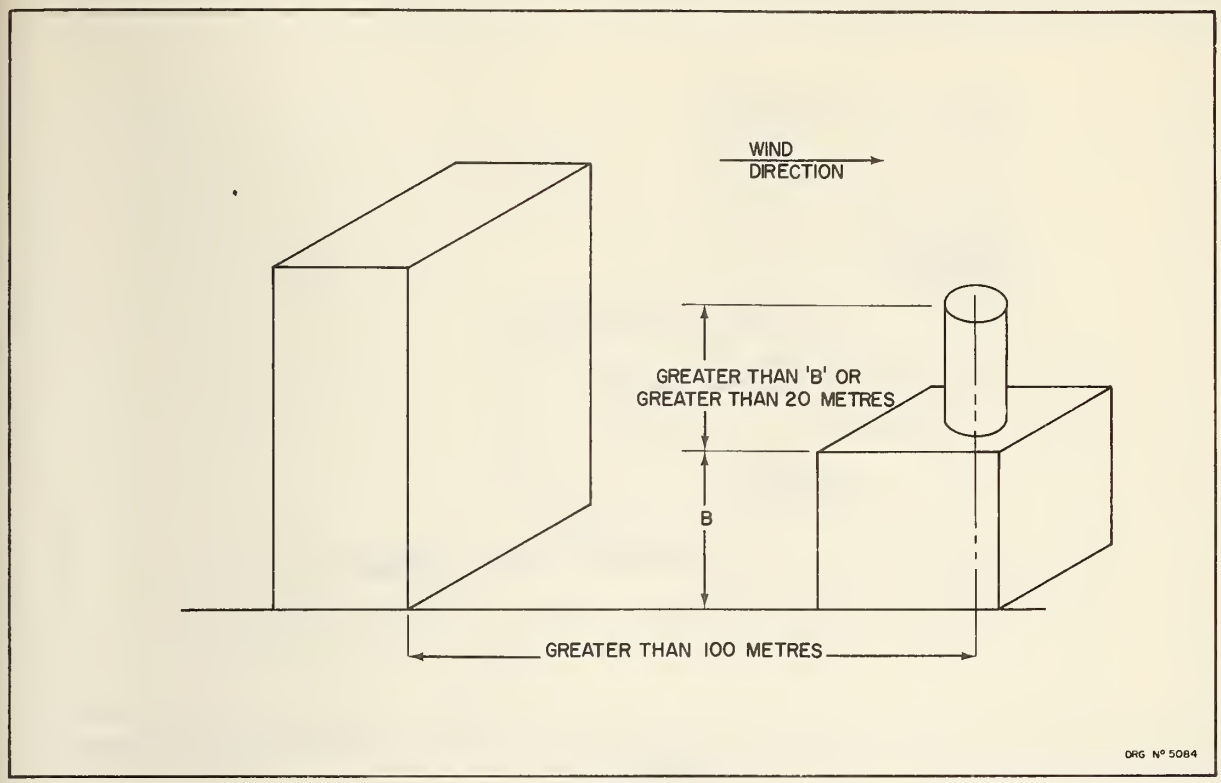


FIGURE 19.

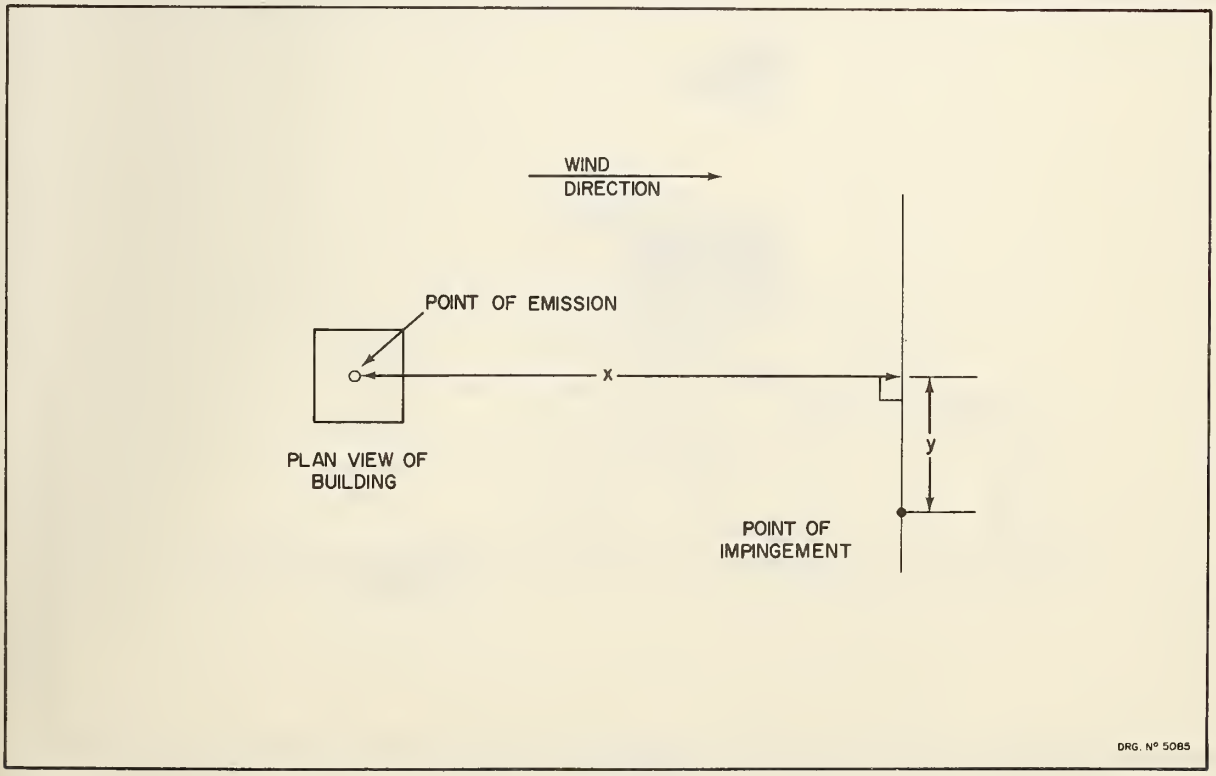


FIGURE 20.

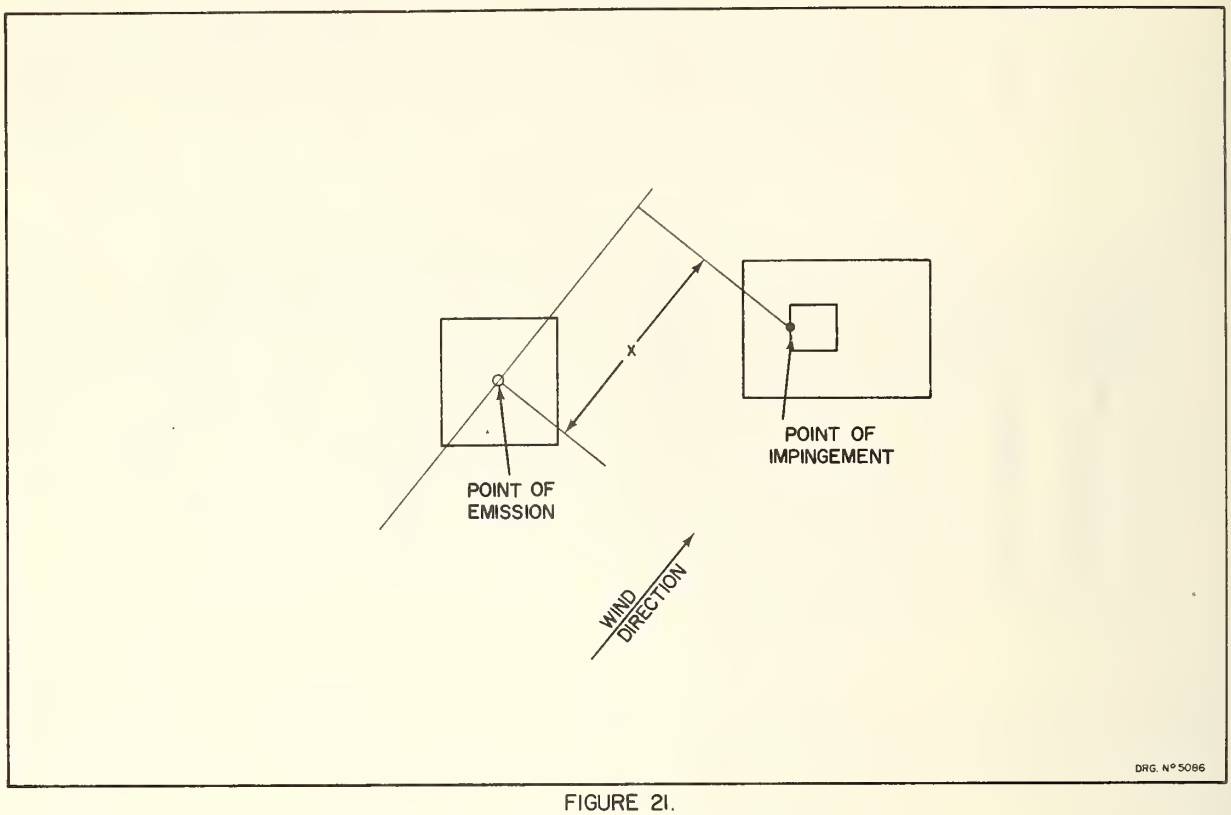


FIGURE 21.

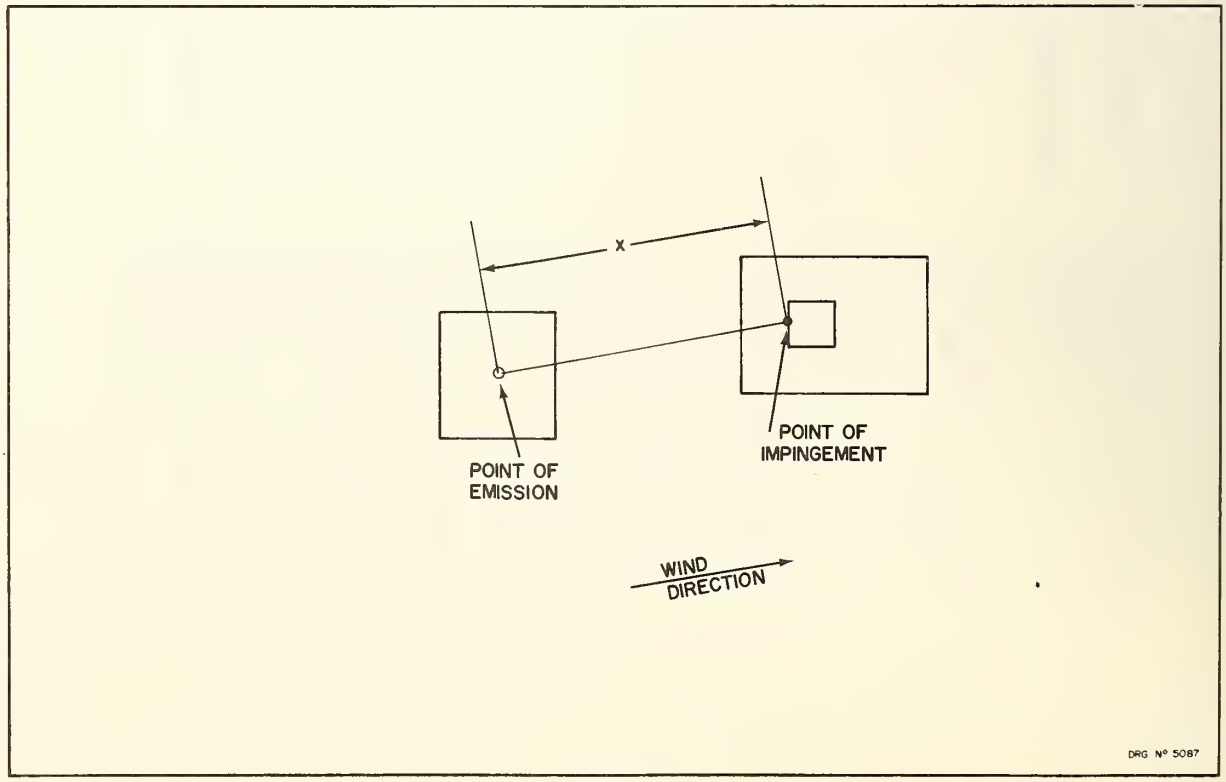


FIGURE 22.

**Schedule 1**

| Item | Column 1 | Column 2 | Column 3 |
|---|---|---|---|
| | Name of Contaminant | Unit of Concentration | Concentration at Point of Impingement—Half Hour Average |
| 1. | Acetic Acid | Micrograms of acetic acid per cubic metre of air | 2,500 |
| 2 | Acetylene | Micrograms of acetylene per cubic metre of air | 56,000 |
| 3 | Ammonia | Micrograms of ammonia per cubic metre of air | 3,600 |
| 4 | Antimony | Total micrograms of antimony in free and combined form per cubic metre of air | 75 |
| 5 | Arsenic | Total micrograms of arsenic in free and combined form per cubic metre of air | 75 |
| 6. | Arsine | Micrograms of arsine per cubic metre of air | 30 |
| 7. | Benzene | Micrograms of benzene per cubic metre of air | 10,000 |
| 8. | Beryllium | Total micrograms of beryllium in free and combined form per cubic metre of air | 0.03 |
| 9. | Boron Tribromide | Micrograms of boron tribromide per cubic metre of air | 100 |
| 10. | Boron Trichloride | Micrograms of boron trichloride per cubic metre of air | 100 |
| 11 | Boron Trifluoride | Micrograms of boron trifluoride per cubic metre of air | 5.0 |
| 12 | Boron | Total micrograms of boron in free and combined form per cubic metre of air | 100 |
| 13. | Bromine | Micrograms of bromine per cubic metre of air | 70 |
| 14 | Cadmium | Total micrograms of cadmium in free and combined form per cubic metre of air | 5.0 |
| 15. | Calcium Hydroxide | Micrograms of calcium hydroxide per cubic metre of air | 27 |
| 16. | Calcium Oxide | Micrograms of calcium oxide per cubic metre of air | 20 |
| 17. | Carbon Black | Micrograms of carbon black per cubic metre of air | 25 |
| 18. | Carbon Disulphide | Micrograms of carbon disulphide per cubic metre of air | 330 |
| 19. | Carbon Monoxide | Micrograms of carbon monoxide per cubic metre of air | 6,000 |
| 20. | Carbon Tetrachloride | Micrograms of carbon tetrachloride per cubic metre of air | 20,000 |
| 21. | Chlorine | Micrograms of chlorine per cubic metre of air | 300 |
| 22. | Chlorine Dioxide | Micrograms of chlorine dioxide per cubic metre of air | 85 |
| 23. | Chromium | Total micrograms of chromium in free and combined form per cubic metre of air | 30 |
| 24. | Copper | Total micrograms of copper in free and combined form per cubic metre of air | 100 |
| 25. | Cresols | Micrograms of cresols per cubic metre of air | 230 |
| 26. | Decaborane | Micrograms of decaborane per cubic metre of air | 50 |
| 27. | Detergent Enzyme (Subtilisin) | Micrograms of subtilisin per cubic metre of air | 1.0 |
| 28. | Diborane | Micrograms of diborane per cubic metre of air | 20 |
| 29. | Dicapryl Phthalate | Micrograms of dicapryl phthalate per cubic metre of air | 100 |
| 30. | Dimethyl Disulphide | Micrograms of dimethyl disulphide per cubic metre of air | 40 |
| 31. | Dimethyl Sulphide | Micrograms of dimethyl sulphide per cubic metre of air | 30 |
| 32. | Dioctyl Phthalate | Micrograms of dioctyl phthalate per cubic metre of air | 100 |

| Item | Column 1<br>Name of Contaminant | Column 2<br>Unit of Concentration | Column 3<br>Concentration at Point of Impingement—Half Hour Average |
|---|---|---|---|
| 34. | Ethyl Acetate | Micrograms of ethyl acetate per cubic metre of air | 19,000 |
| 35. | Ethyl Acrylate | Micrograms of ethyl acrylate per cubic metre of air | 4.5 |
| 36. | Ethylene Oxide | Micrograms of ethylene oxide per cubic metre of air | 28,500 |
| 37. | Ferric Oxide | Micrograms of ferric oxide per cubic metre of air | 75 |
| 38. | Fluorides, (Gaseous) (April 15 to October 15) | Micrograms of gaseous, inorganic fluoride per cubic metre of air expressed as hydrogen fluoride | 4.3 |
| 39. | Fluorides, (Total) (April 15 to October 15) | Total micrograms of inorganic fluoride per cubic metre of air expressed as hydrogen fluoride | 8.6 |
| 40. | Fluorides, (Total) (October 16 to April 14) | Total micrograms of inorganic fluoride per cubic metre of air expressed as hydrogen fluoride | 17.2 |
| 41. | Formaldehyde | Micrograms of formaldehyde per cubic metre of air | 65 |
| 42. | Hydrogen Chloride | Micrograms of hydrogen chloride per cubic metre | 100 |
| 43. | Hydrogen Cyanide | Micrograms of hydrogen cyanide per cubic metre of air | 1,150 |
| 44. | Hydrogen Sulphide | Micrograms of hydrogen sulphide per cubic metre of air | 30 |
| 45. | Iron (metallic) | Micrograms of metallic iron per cubic metre of air | 10 |
| 46. | Lead | Total micrograms of lead in free and combined form per cubic metre of air | 10 |
| 47. | Lithium Hydrides | Total micrograms of lithium hydrides per cubic metre of air | 7.5 |
| 48. | Lithium | Total micrograms of lithium in other than hydride compounds per cubic metre of air | 60 |
| 49. | Magnesium Oxide | Total micrograms of magnesium oxide per cubic metre of air | 100 |
| 50. | Manganese | Total micrograms of manganese in free and combined form per cubic metre of air | 100 |



| Item | Column 1<br>Name of Contaminant | Column 2<br>Unit of Concentration | Column 3<br>Concentration at Point of Impingement—Half Hour Average |
|---|---|---|---|
| 51. | Mercaptans | Total micrograms of mercaptans per cubic metre of air expressed as methyl mercaptans | 20 |
| 52. | Mercury (alkyl) | Total micrograms of mercury compounds per cubic metre of air | 1.5 |
| 53. | Mercury | Total micrograms of mercury in free and combined form per cubic metre of air | 5.0 |
| 54. | Methyl Acrylate | Micrograms of methyl acrylate per cubic metre of air | 4.0 |
| 55. | Methyl Chloroform (1-1-1 Trichloroethane) | Micrograms of methyl chloroform per cubic metre of air | 350,000 |
| 56. | Methyl Ethyl Ketone (2-Butanone) | Micrograms of methyl ethyl ketone per cubic metre of air | 31,000 |
| 57. | Methyl Methacrylate | Micrograms of methyl methacrylate per cubic metre of air | 860 |
| 58. | Milk Powder | Micrograms of milk powder per cubic metre of air | 20 |
| 59. | Nickel | Total micrograms of nickel in free and combined form per cubic metre of air | 5 |
| 60. | Nickel Carbonyl | Micrograms of nickel carbonyl per cubic metre of air | 1.5 |
| 61. | Nitric Acid | Micrograms of nitric acid per cubic metre of air | 100 |
| 62. | Nitrogen Oxides | Micrograms of nitrogen oxides per cubic metre of air expressed as $NO_2$ | 500 |
| 63. | Ozone | Micrograms of ozone per cubic metre of air | 200 |
| 64. | Pentaborane | Micrograms of pentaborane per cubic metre of air | 3.0 |
| 65. | Pentachloraphenol | Micrograms of pentachloraphenol per cubic metre of air | 90 |
| 66. | Phenol | Micrograms of phenol per cubic metre of air | 100 |
| 67. | Phosgene | Micrograms of phosgene per cubic metre of air | 130 |
| 68. | Phosphoric Acids | Micrograms of phosphoric acids per cubic metre of air expressed as $P_2O_5$ | 100 |

| Item | Column 1 | Column 2 | Column 3 |
|---|---|---|---|
| | Name of Contaminant | Unit of Concentration | Concentration at Point of Impingement—Half Hour Average |
| 69. | Phthalic Anhydride | Micrograms of phthalic anhydride per cubic metre of air | 100 |
| 70. | Silver | Total micrograms of silver in free and combined form per cubic metre of air | 3 |
| 71. | Sulphur Dioxide | Micrograms of sulphur dioxide per cubic metre of air | 830 |
| 72. | Sulphuric Acid | Micrograms of sulphuric acid per cubic metre of air | 100 |
| 73. | Suspended Particulate Matter (particulate less than 44 microns in size) | Total micrograms of suspended particulate matter per cubic metre of air | 100 |
| 74. | Tetrahydrofuran | Micrograms of tetrahydrofuran per per cubic metre of air | 93,000 |
| 75. | Tin | Total micrograms of tin in free and combined form per cubic metre of air | 30 |
| 76. | Titanium | Total micrograms of titanium in free and combined form per cubic metre of air | 100 |
| 77 | Toluene | Micrograms of toluene per cubic metre of air | 2,000 |
| 78. | Toluene Di-isocyanate | Micrograms of toluene di-isocyanate per cubic metre of air | 1.0 |
| 79. | Trichloroethylene | Micrograms of trichloroethylene per cubic metre of air | 85,000 |
| 80. | Trifluorotrichloro Ethane | Micrograms of trifluoro trichloroethane per cubic metre of air | 2.4 million |
| 81. | Vanadium | Total micrograms of vanadium in free and combined form per cubic metre of air | 5.0 |
| 82. | Vinylidene chloride (1, 1 Dichloro Ethene) | Micrograms of vinylidene chloride per cubic metre of air | 26,000 |
| 83. | Xylenes | Micrograms of xylenes per cubic metre of air | 2,300 |
| 84. | Zinc | Total micrograms of zinc in free and combined form per cubic metre of air | 100 |

O. Reg. 873/74, s. 7, *part*.

Schedule 2. Revoked: O. Reg. 873/74, s. 7, *part*.

## THE ENVIRONMENTAL PROTECTION ACT, 1971

**O. Reg. 872/74.**
Ambient Air Quality Criteria.
Made—October 31st, 1974.
Filed—November 13th, 1974.

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REGULATION MADE UNDER
THE ENVIRONMENTAL PROTECTION ACT, 1971

AMBIENT AIR QUALITY CRITERIA

**1.** The desirable ambient air quality criteria for each contaminant set out in Column 1 of the Schedule is that amount of concentration or total amount of contaminant set out opposite thereto in Column 3 of the Schedule in the unit of measurement set out opposite thereto in Column 2 of the Schedule for the time set out opposite thereto in Column 4 of the Schedule. O. Reg. 872/74, s. 1.

**Schedule**

| Item | Column 1 | Column 2 | Column 3 | Column 4 | Column 5 |
|---|---|---|---|---|---|
| | Name of Contaminant | Unit of Measurement | Average Amount of Concentration or Total Amount of Contaminant | Period of Time | Approximate Equivalent at 10°C and 760 mm Hg pressure |
| 1. | Arsenic | Micrograms of Arsenic per cubic metre of air | 25 | 24 hours | |
| 2. | Cadmium | Micrograms of cadmium per cubic metre of air | 2.0 | 24 hours | |
| 3. | Carbon Monoxide | Parts of carbon monoxide per one million parts of air by volume | 30<br>13 | 1 hour<br>8 hours | 36,200 ug/m³<br>15,700 ug/m³ |
| 4. | Dustfall | Tons of dustfall per square mile per month | 20 Total<br>13 | 30 days<br>1 year | |
| 5. | Fluorides (Gaseous) April 15 to October 15 | Parts of fluorides per billion parts of air by volume (Expressed as HF) | 1.0<br>0.4 | 24 hours<br>30 days | 0.86 ug/m³<br>0.34 ug/m³ |
| 6. | Total Fluorides (Gaseous and Particulate) April 15 to October 15 | Parts of fluorides per one billion parts of air by volume (Expressed as HF) | 2.0<br>0.8 | 24 hours<br>30 days | 1.72 ug/m³<br>0.69 ug/m³ |
| 7. | Total Fluorides (Gaseous and Particulate) October 16 to April 14 | Parts of fluorides per one billion parts of air by volume (Expressed as HF) | 4.0<br>1.6 | 24 hours<br>30 days | 3.44 ug/m³<br>1.38 ug/m³ |
| 8. | Fluorides in Forage for Consumption by Live stock | Parts of total fluorides per one million parts forage (dry weight) | 35 | Individual Sample | |

| Item | Column 1<br>Name of Contaminant | Column 2<br>Unit of Measurement | Column 3<br>Average Amount of Concentration or Total Amount of Contaminant | Column 4<br>Period of Time | Column 5<br>Approximate Equivalent at 10°C and 760 mm Hg pressure |
|---|---|---|---|---|---|
| 9 | Fluoridation (total) April 15 to October 15 | Micrograms of total fluorides collected by 100 sq centimetres of limed filter paper | 40 | 30 days | |
| 10 | Fluoridation (total) October 16 to April 14 | Micrograms of total fluorides collected by 100 sq centimetres of limed filter paper | 80 | 30 days | |
| 11 | Hydrogen Sulphide | Parts of hydrogen sulphide per one million parts of air by volume | 0.02 | 1 hour | 30 ug/m³ |
| 12 | Lead | Micrograms of lead per cubic metre of air | 5.0<br>2.0 geometric mean | 24 hours<br>30 days | |
| 13 | Mercaptans | Parts of mercaptans per one million parts of air by volume (Expressed as methyl mercaptan) | 0.01 | 1 hour | 20 ug/m³ |
| 14 | Mercury | Micrograms of mercury per cubic metre of air | 2.0 | 24 hours | |
| 15 | Nickel | Micrograms of Nickel per cubic metre of air | 2.0 | 24 hours | |
| 16 | Nitrogen Dioxide | Parts of nitrogen dioxide per one million parts of air by volume | 0.20<br>0.10 | 1 hour<br>24 hours | 400 ug/m³<br>200 ug/m³ |
| 17 | Oxidants (total) | Parts of total oxidants per one million parts of air by volume | 0.10 | 1 hour | |
| 18 | Ozone | Parts of ozone per one million parts of air by volume | 0.08 | 1 hour | 165 ug/m³ |
| 19 | Soiling | Coefficient of Haze per 1,000 feet of air | 1.0<br>0.5 | 24 hours<br>1 year | |
| 20 | Sulphation | Milligrams of sulphur trioxide per 100 sq. cm of exposed lead peroxide per day | 0.7 | 30 days | |
| 21 | Sulphur Dioxide | Parts of sulphur dioxide per one million parts of air by volume | 0.25<br>0.10<br>0.02 | 1 hour<br>24 hours<br>1 year | 690 ug/m³<br>275 ug/m³<br>55 ug/m³ |



| Item | Column 1<br>Name of Contaminant | Column 2<br>Unit of Measurement | Column 3<br>Average Amount of Concentration or Total Amount of Contaminant | Column 4<br>Period of Time | Column 5<br>Approximate Equivalent at 10°C and 760 mm Hg pressure |
|---|---|---|---|---|---|
| 22. | Suspended Particulate Matter | Micrograms of suspended particulate matter per cubic metre of air | 120<br>60 geometric mean | 24 hours<br>1 year | |
| 23 | Vanadium | Micrograms of vanadium per cubic metre of air | 2.0 | 24 hours | |

O. Reg. 872/74, Sched.; O. Reg. 158/75, s. 1.

# A P P E N D I X  2

## The Ontario Water Resources Act

Government of Ontario

Ontario

# The Ontario Water Resources Act

Revised Statutes of Ontario, 1970
Chapter 332
as amended by
1972, Chapter 1, s. 70; 1973, Chapter 90;
1974, Chapter 19 and 1975, Chapter 71

and

**Ontario Regulation 54/76**

CHAPTER 332

## The Ontario Water Resources Act

**1.** In this Act, Interpretation

(*a*) "Board" means the Ontario Municipal Board;

(*b*) "borrowings of the Commission" includes all loans raised by the Commission by the issue of debentures or otherwise and all advances from the Province to the Commission;

(*c*) "Commission" means the Ontario Water Resources Commission;

(*ca*) "Crown" means Her Majesty the Queen in right of Ontario;

. . . . .

(*f*) "construction" includes reconstruction, improvement, extension, alteration, replacement and repairs, and "construct" has a corresponding meaning;

(*g*) "cost" means,

(i) in relation to a project under an agreement entered into before the 1st day of April, 1974, the cost thereof as determined by the Minister and includes interest during construction and such engineering fees and other charges and expenses in connection with construction as the Minister may determine, and such proportion of discounts, commissions and other charges and expenses in respect of the issue of debentures by the Crown as the Minister in his discretion may allocate to the project, or

(ii) in relation to a project under an agreement entered into on or after the 1st day of April, 1974, the cost thereof as determined by the Minister and includes such engineering fees and other charges and expenses in connection with construction as

the Minister may determine and such financing costs applicable to the project as the Treasurer may determine and the Minister in his discretion may allocate to the project;

(*h*) "date of completion" of a project means the date that is certified by the Minister as being the date on which the project is completed to the extent necessary to enable the Minister to supply water or to receive, treat and dispose of sewage, as the case may be;

(*i*) "debentures" includes bonds, notes and other securities;

(*ia*) "Director" means a Director appointed under section 8;

(*ib*) "Environmental Assessment Board" means the Environmental Assessment Board established under *The Environmental Assessment Act, 1975*; 1975, c. 69

(*j*) "land" includes any estate, term, easement, right or interest in, to, over or affecting land;

(*k*) "Minister" means the Minister of the Environment;

(*ka*) "Ministry" means the Ministry of the Environment;

(*l*) "municipality" means the corporation of a county, metropolitan area, regional area, district area, city, town, village, township or improvement district and includes a local board thereof and a board, commission or other local authority exercising any power with respect to municipal affairs or purposes, including school purposes, in an unorganized township or unsurveyed territory;

(*m*) "owner" means a municipality or person having authority to construct, maintain, operate, repair, improve or extend water works or sewage works;

(*n*) "project" means water works or sewage works provided for in an agreement under section 52;

(*o*) "Province" means the Province of Ontario;

(*p*) "sewage" includes drainage, storm water, com-



matter or substance as is specified by regulations made under clause *l* of subsection 1 of section 62;

(*q*) "sewage works" means any works for the collection, transmission, treatment and disposal of sewage, or any part of any such works, but does not include plumbing or other works to which regulations made under clause *f* of subsection 1 of section 62 apply;

(*qa*) "Treasurer" means the Treasurer of Ontario and Minister of Economics and Intergovernmental Affairs;

(*r*) "water works" means any works for the collection, production, treatment, storage, supply and distribution of water, or any part of any such works, but does not include plumbing or other works to which regulations made under clause *f* of subsection 1 of section 62 apply. R.S.O. 1970, c. 332, s. 1; 1972, c. 1, s. 70 (2, 3, 7-11); 1972, c. 1, s. 104 (1); 1973, c. 90, s. 1; 1974, c. 19, s. 1; 1975, c. 71, s. 1.

ADMINISTRATION

Administration

**2.** The Minister of the Environment is responsible for the administration of this Act. 1972, c. 1, s. 70 (12), *part*.

THE COMMISSION

Corporation dissolved

**3.**—(1) The Ontario Water Resources Commission is dissolved.

Enforcement of contracts, etc.

(2) Every contract, negotiable instrument, agreement, security and covenant, and every conveyance, transfer or instrument with respect to any property or any interest therein, given to or received by or for the benefit of the Ontario Water Resources Commission or to which the Ontario Water Resources Commission is a party immediately before this section comes into force,

(*a*) shall enure to the benefit of and be binding upon the Crown; and

(*b*) may be enforced in accordance with the terms thereof as if received by or for the benefit of or entered into with the Crown,

and every reference therein to the Ontario Water Resources Commission shall be deemed to be a reference to the Crown and the Minister except with respect to rates

under agreements made under subsection 1*a* of section 17 and subsection 3 of section 52, may exercise every power, right, privilege and discretion therein or with respect thereto that the Commission could have exercised.

Transfer of assets, etc.

(3) All assets and liabilities of the Ontario Water Resources Commission vest in and are binding upon the Crown. 1972, c. 1, s. 70 (12), *part*.

Amendment of reference to Ontario Water Resources Commission

(4) A reference to the Commission in any direction, order, report, approval, notice, permit, licence or document made, given or issued under this Act before this section comes into force shall be deemed to be a reference to a Director, in whom the power to make, give or issue such direction, order, report, approval, notice, permit, licence or document is vested under this Act and who is hereby empowered to exercise any power, right or discretion in any such direction, order, report, approval, notice, permit, licence or document made, given or issued before this section comes into force. 1972, c. 1, s. 70 (12) *part*; 1974, c. 19, s. 3 (1).

Reference in regulation

(5) A reference to the Commission in Regulation 644 of Revised Regulations of Ontario, 1970, shall be deemed to be a reference to a Director. 1974, c. 19, s. 3 (2), *part*.

Idem

(5*a*) A reference to the Commission in Regulation 647 of Revised Regulations of Ontario, 1970, shall be deemed to be a reference to the Minister of Consumer and Commercial Relations. 1974, c. 19, s. 3 (2), *part*; O. Reg. 54/76.

Reference in other Acts

(6) A reference in any other Act or in any regulation or document made or issued under or pursuant to any other Act to the Ontario Water Resources Commission shall be deemed to be a reference to the Minister.

Actions or proceedings

(7) A reference to the Ontario Water Resources Commission in any action or proceeding that is commenced before this section comes into force shall be deemed to be a reference to the Crown and the Minister may exercise any right, power, privilege or discretion with respect to the action or proceeding that the Commission could have exercised. 1972, c. 1, s. 70 (12), *part*.

Rates

(8) Every power, right, privilege and discretion with respect to rates under agreements made under subsection 1*a* of section 17 and subsection 3 of section 52 may be exercised by a Director. 1972, c. 1, s. 70 (12), *part*; 1974, c. 19, s. 2 (*c*).

Idem

(9) Any action taken or notice given or hearing held by the Commission immediately before this section comes into force with respect to any licence, permit, notice, direction, order, report or approval shall be deemed to have been taken, given or held by the Director in whom the power to make, issue or give such licence, permit, notice, direction, order, report or approval is vested under this Act. 1972, c. 1, s. 70 (12), *part*; 1974, c. 19, s. 3 (3).



Evidence

**4.** A copy of any by-law, resolution or minute of the Commission or of any direction, order, report, approval, notice, permit or licence made or issued by the Commission, certified by the secretary or assistant secretary under the seal of the Commission to be a true copy, shall be received as *prima facie* evidence in any court without further proof. R.S.O. 1970, c. 332, s. 4.

**5.** REPEALED: 1974, c. 19, s. 4.

**6, 7.** REPEALED: 1972, c. 1, s. 70 (48).

Appointment of Directors by Minister

**8.**—(1) The Minister shall appoint in writing such employees of the Ministry as he considers necessary as Directors in respect of such sections of this Act and in respect of such of the regulations or sections thereof as are set out in the appointments.

Limitations

(2) The Minister, in an appointment pursuant to subsection 1, may limit the authority of a Director in such manner as the Minister considers necessary or advisable. 1974, c. 19, s. 5.

Delegation of authority

**9.** Where under this Act any power, duty or authority is granted to or vested in the Minister, other than the power to expropriate, he may in writing, subject to the approval of the Lieutenant Governor in Council, delegate that power, duty or authority to the Deputy Minister or to any officer or officers of the Ministry, subject to such limitations, restrictions, conditions and requirements as the Minister may set out in the delegation. 1972, c. 1, s. 70 (13), *part*.

**9***a*.—(1) to (9) REPEALED: 1975, c. 71, s. 3 (1).

When Environmental Assessment Board to hold hearing

(10) Where a Director is required or permitted to hold a hearing or considers a hearing necessary or advisable under this Act, he may by a notice in writing and on such terms and conditions as he may direct, require the Environmental Assessment Board to hold the hearing. 1972, c. 1, s. 70 (13), *part*; 1974, c. 19, s. 2 (*d*); 1975, c. 71, s. 2.

When Environmental Assessment Board to hold public hearing

(11) Upon receipt of notice from a Director referred to in subsection 10, the Environmental Assessment Board shall

hold a public hearing with respect to the subject-matter of the notice and shall report thereon to the Director. 1974, c. 19, s. 6; 1975, c. 71, s. 2.

Procedure

1975, c. 69

(12) Except where otherwise provided in this Act and notwithstanding the requirement that a hearing be a public hearing, the provisions of Part III of *The Environmental Assessment Act, 1975* apply where a hearing is required to be held under this Act by the Environmental Assessment Board. 1975, c. 71, s. 3 (2).

Application of 1975, c. 69

(12*a*) Subsections 12 and 14 to 20 of section 18 and sections 20 and 24 of *The Environmental Assessment Act, 1975* do not apply where a hearing is required to be held under this Act by the Environmental Assessment Board.

Hearings

(12*b*) Where a hearing is required to be held under this Act by the Environmental Assessment Board,

(*a*) the Board shall determine its own practice and procedure in relation to hearings and may, subject to the approval of the Lieutenant Governor in Council, make rules governing such practice and procedure and the exercise of its powers in relation thereto and prescribe such forms as are considered advisable;

(*b*) the member or members conducting a hearing shall prepare and submit to the Board a draft report of the Board referred to in clause *e* and, after notice of the purpose of the meeting has been given to all members of the Board, the Board shall consider the draft report at a meeting of the Board called for the purpose of preparing the report and the Board in preparing the report may,

(i) adopt the draft report,

(ii) adopt the draft report with such changes as the Board considers advisable, or

(iii) reject the draft report and take such other action for the purpose of preparing the report, including the holding of additional hearings, as the Board considers advisable;

(*c*) a hearing by the Board is for the purpose of making a report containing information and advice and the report is not in any way legally binding in any decision or determination that may

(*f*) to disseminate information and advice with respect to the collection, production, transmission, treat-



(*d*) for the purposes of the exercise of any power or authority or the discharge of any duty by the Board or any member or members thereof conducting a hearing, the Board, or such member or members, has or have the powers of a commission under Part II of *The Public Inquiries Act, 1971*, which Part applies to the exercise of such power or authority and the discharge of such duty as if it were an inquiry under that Act; and 1971, c. 49

(*e*) the report of the Board shall contain a summary of the information presented and the views expressed at the hearing and its recommendations in respect of the subject-matter of the hearing, together with its reasons therefor. 1975, c. 71, s. 3 (3).

(13) REPEALED: 1975, c. 71, s. 3 (4), *part*.

Hearings commenced by Commission

(14) On the direction in writing of a Director, where the Commission, immediately before this section comes into force, proposed to hold or commenced but did not complete a hearing, the hearing shall be held or continued by the Environmental Assessment Board and any action or notice taken or given by the Commission shall be deemed to have been taken or given by the Environmental Assessment Board. 1972, c. 1, s. 70 (13), *part*; 1974, c. 19, s. 2 (*d*); 1975, c. 71, s. 2.

(15) REPEALED: 1975, c. 71, s. 3 (4), *part*.

**10.** REPEALED: 1972, c. 1, s. 70 (48).

**11.** REPEALED: 1973, c. 90, s. 2.

**12, 13.** REPEALED: 1974, c. 19, s. 7.

**14. - 16.** REPEALED: 1972, c. 1, s. 70 (48).

Function

**17.**—(1) Notwithstanding any other Act, it is the function of the Minister and he has power,

. . . . .

(*b*) to construct, acquire, provide, operate and maintain water works and to develop and make available supplies of water to municipalities and persons;

(*c*) to construct, acquire, provide, operate and maintain sewage works and to receive, treat and dispose of sewage delivered by municipalities and persons;

. . . . .

(*e*) to conduct research programs and to prepare

section 62 apply, and may make orders requiring examinations, investigations, inspections or other arrangements as may be necessary. R.S.O. 1970, c. 332, s. 20 (1); 1972,

(*f*) to disseminate information and advice with respect to the collection, production, transmission, treatment, storage, supply and distribution of water or sewage; and

(*g*) to perform such functions or discharge such duties as may be assigned to him from time to time by the Lieutenant Governor in Council. R.S.O. 1970, c. 332, s. 17 (1); 1972, c. 1, s. 70 (2, 15); 1974, c. 19, s. 8.

Idem

(1*a*) Notwithstanding any other Act, the Crown, represented by the Minister, may make agreements with any one or more municipalities or persons with respect to a supply of water or the reception, treatment and disposal of sewage. 1972, c. 1, s. 70 (16), *part*.

Power of Director

(1*b*) Notwithstanding any other Act, it is the function of a Director and he has power to control and regulate the collection, production, treatment, storage, transmission, distribution and use of water for public purposes and to make orders with respect thereto. 1972, c. 1, s. 70 (16), *part*; 1974, c. 19, s. 2 (*a*).

Offence

(2) Every person who contravenes any order made under subsection 1*b* is guilty of an offence and on summary conviction is liable to a fine of not more than $100 for every day or part thereof during which such contravention continues. R.S.O. 1970, c. 332, s. 17 (2); 1972, c. 1, s. 70 (17).

Agreements under s. 17

**18.** Any municipality may enter into agreements with the Crown under subsection 1*a* of section 17, and subsections 4 to 8 of section 52, section 54 and subsection 5 of section 56 apply *mutatis mutandis* to such agreements. R.S.O. 1970, c. 332, s. 18; 1972, c. 1, s. 70 (3, 18).

Municipal powers

**19.** The Minister may for his purposes exercise any or all of the powers that are conferred by any general Act upon a municipality respecting the establishment, construction, maintenance or operation of water works or sewage works. R.S.O. 1970, c. 332, s. 19; 1972, c. 1, s. 70 (2).

Inspection of premises, etc.

**20.**—(1) The Minister and his employees and agents may at any time for his purposes, without consent and without compensation, enter into the lands or buildings of the Province or of any municipality or of any person, or into any highway or road under the jurisdiction and control of any public authority, or into any boat or ship to which the regulations under clause *n* of subsection 1 of section 62 apply, and may make such surveys, examinations, investigations, inspections or other arrangements as he considers necessary. R.S.O. 1970, c. 332, s. 20 (1); 1972, c. 1, s. 70 (2); 1974, c. 19, s. 9.

Right to lay and maintain pipes under roads

(2) The Minister and his employees and agents may for his purposes, without consent and without compensation, lay, maintain, repair, alter or replace such pipes and appurtenances thereto as he considers necessary in, upon, through, over and under any highway or road under the jurisdiction and control of any public authority. R.S.O. 1970, c. 332, s. 20 (2); 1972, c. 1, s. 70 (2).

Land, etc., to be restored

(3) Lands, buildings, highways or roads disturbed by the exercise of any of the powers mentioned in subsection 1 or 2 shall be restored to their original condition without unnecessary delay. R.S.O. 1970, c. 332, s. 20 (3).

Offence

(4) Every person who hinders or obstructs any employee or agent of the Minister in the exercise of his powers or the performance of his duties under subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than $200 for every day upon which the offence is committed or continues. R.S.O. 1970, c. 332, s. 20 (4); 1972, c. 1, s. 70 (2).

Acquisition of land, etc.

**21.**—(1) The Minister, for and on behalf of the Crown, may for the purposes of this Act, acquire by purchase, lease or otherwise or, without the consent of the owner, enter upon, take possession of, expropriate and use land and may use the waters of any lake, river, pond, spring or stream as may be considered necessary for his purposes, and, upon such terms as he considers proper, may sell, lease or dispose of any land that in his opinion is not necessary for his purposes. R.S.O. 1970, c. 332, s. 21 (1); 1972, c. 1, s. 70 (2, 19).

Expropriation

(2) The Minister in the exercise of his powers to take such land compulsorily has all the powers conferred by *The Ministry of Government Services Act, 1973* on the Minister of Government Services in relation to a public work, and in the application of this section where the words "the Minister", "the Ministry" or "the Crown" appear in such Act they, where the context permits, mean the Minister, and the taking of such land by the Minister shall be deemed to be for the public purposes of Ontario. R.S.O. 1970, c. 332, s. 21 (2); 1972, c. 1, ss. 1, 70 (2), 74 (1, 3); 1973, c. 2, s. 2. 1973, c. 2

Procedure

(3) The Minister shall proceed in the manner provided by *The Ministry of Government Services Act, 1973* where the

R.S.O. 1970, c. 154

Minister of Government Services enters upon, takes or uses land for the public purposes of Ontario and *The Expropriations Act* applies. R.S.O. 1970, c. 332, s. 21 (3); 1972, c. 1, ss. 70 (2), 74 (1, 3); 1973, c. 2, s. 2.

Interpretation

(4) For the purpose of this section, "owner" has the same meaning as in *The Ministry of Government Services Act, 1973*. R.S.O. 1970, c. 332, s. 21 (4); 1972, c. 1, s. 74 (1, 3); 1973, c. 2, s. 2.

Application of 1973, c. 2 to property acquired for water or sewage service

**22.** Subject to section 21, *The Ministry of Government Services Act, 1973* does not apply to real or personal property of the Crown acquired for the purpose of a project or for the provision of water or sewage service by the Minister as defined in section 61. R.S.O. 1970, c. 332, s. 22; 1972, c. 1, ss. 70 (2, 3), 74 (1); 1973, c. 2, s. 2.

Instruments creating rights analogous to easements

**23.**—(1) A right or interest in, over, above, upon, across, along, through, under or affecting any land or any covenant or condition relating thereto, in respect of water or sewage works, in favour of the Crown or any municipality having a contract with the Crown in respect of water or sewage works is valid and enforceable in accordance with the terms of the instrument granting, creating or containing them, notwithstanding that the right or interest or the benefit of the covenant or condition is not appurtenant or annexed to or for the benefit of any land of the Crown or the municipality. R.S.O. 1970, c. 332, s. 23 (1); 1972, c. 1, s. 70 (3).

Terms of instrument binding on successors

(2) On and after the registration of an instrument to which subsection 1 applies in the proper registry or land titles office, all the rights, interests, covenants and conditions granted or created by or contained in the instrument are binding upon and enure to the benefit of the heirs, successors, personal representatives and assigns of the parties to the instrument.

Liability of grantor for breach of covenant limited

(3) A party to an instrument to which subsection 1 applies or a person to whom subsection 2 applies is not liable for breach of a covenant or condition contained in the instrument committed after he ceased to be the owner of the land therein mentioned, or after he ceased to hold the interest in the land by virtue of which he or his predecessor in title executed the instrument.

Land to remain subject to instrument when sold for taxes

(4) Where the land mentioned in an instrument to which subsection 1 applies is sold for taxes, the land shall be deemed to have been sold subject to any right or interest granted or created by and any condition or covenant contained in the instrument.



Application

(5) This section applies to rights, interests, covenants and conditions granted or created by or contained in any instrument of the type mentioned in subsection 1, executed after the 28th day of March, 1956. R.S.O. 1970, c. 332, s. 23 (2-5).

**24, 25.** REPEALED: 1974, c. 19, s. 10.

**26.** REPEALED: 1974, c. 19, s. 11.

**27.** REPEALED: 1974, c. 19, s. 12.

**28, 29.** REPEALED: 1972, c. 1, s. 70 (48).

WATER

Where quality of water deemed to be impaired

**30.** Under sections 31, 32, 34 and 36 the quality of water shall be deemed to be impaired if, notwithstanding that the quality of the water is not or may not become impaired, the material deposited or discharged or caused or permitted to be deposited or discharged or any derivative of such material causes or may cause injury to any person, animal, bird or other living thing as a result of the use or consumption of any plant, fish or other living matter or thing in the water or in the soil in contact with the water. R.S.O. 1970, c. 332, s. 30.

Supervision of waters

**31.**—(1) For the purposes of this Act, the Minister has the supervision of all surface waters and ground waters in Ontario. R.S.O. 1970, c. 332, s. 31 (1); 1972, c. 1, s. 70 (2).

Examination for pollution

(2) The Minister may examine any surface waters or ground waters in Ontario from time to time to determine what, if any, pollution exists and the causes thereof. R.S.O. 1970, c. 332, s. 31 (2); 1972, c. 1, s. 70 (2).

Injunction to prevent pollution of water

(3) Where any person is discharging or depositing or causing or permitting the discharge or deposit of any material of any kind into or in or near any well, lake, river, pond, spring, stream, reservoir or other body of water or watercourse that, in the opinion of the Minister, may impair the quality of the water in such well, lake, river, pond, spring, stream, reservoir or other body of water or watercourse, the Minister may apply *ex parte* to a judge of the Supreme Court or of the county or district court of the county or district in which the material is being discharged or deposited for an order prohibiting such discharge or deposit for such period not exceeding twenty-one days and on such terms and conditions as the judge considers proper, and such order may, on application to a judge

of the Supreme Court or of the county or district court of the county or district in which the material is being discharged or deposited, be continued for such period and on such terms and conditions as the judge considers proper. R.S.O. 1970, c. 332, s. 31 (3); 1972, c. 1, s. 70 (2).

Discharge of polluting material prohibited

**32.**—(1) Every municipality or person that discharges or deposits or causes or permits the discharge or deposit of any material of any kind into or in any well, lake, river, pond, spring, stream, reservoir or other water or watercourse or on any shore or bank thereof or into or in any place that may impair the quality of the water of any well, lake, river, pond, spring, stream, reservoir or other water or watercourse is guilty of an offence and on summary conviction is liable on first conviction to a fine of not more than $5,000 and on each subsequent conviction to a fine of not more than $10,000 or to imprisonment for a term of not more than one year, or to both such fine and imprisonment.

Separate offences

(2) Each day that a municipality or person contravenes subsection 1 constitutes a separate offence. R.S.O. 1970, c. 332, s. 32 (1, 2).

Minister to be notified when polluting material is discharged, deposited or escapes

(3) Every municipality or person that discharges or deposits or causes or permits the discharge or deposit of any material of any kind, and such discharge or deposit is not in the normal course of events, or from whose control material of any kind escapes into or in any well, lake, river, pond, spring, stream, reservoir or other water or watercourse or on any shore or bank thereof or into or in any place that may impair the quality of the water of any well, lake, river, pond, spring, stream, reservoir or other water or watercourse, shall forthwith notify the Minister of the discharge, deposit or escape, as the case may be. R.S.O. 1970, c. 332, s. 32 (3); 1972, c. 1, s. 70 (2).

Offence

(4) Every municipality or person that fails to notify the Minister as provided in subsection 3 is guilty of an offence and on summary conviction is liable to a fine of not more than $5,000. R.S.O. 1970, c. 332, s. 32 (4); 1972, c. 1, s. 70 (2).

Where subs. 1 does not apply

(5) The discharge into any lake, river, stream or other water or watercourse of sewage from sewage works that have been constructed and are operated in accordance with the approval of the former Department of Health, the Commission or the Executive Director, Water Supply and Pollution Control, of the Ministry or a Director or in conformity with any order of the Board is not a contravention of subsection 1. R.S.O. 1970, c. 332, s. 32 (5); 1972, c. 1, s. 70 (22); 1974, c. 19, s. 13.

Prohibiting or regulating discharge of sewage

**33.**—(1) A Director may by order prohibit or regulate the discharge or deposit by any municipality or person of any sewage into or in any well, lake, river, pond, spring, stream, reservoir or other water or watercourse, and any such order may be amended, varied or revoked by the Director as he considers desirable. R.S.O. 1970, c. 332, s. 33 (1); 1972, c. 1, s. 70 (23); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every municipality or person that contravenes an order made under subsection 1 is guilty of an offence and on summary conviction is liable on first conviction to a fine of not more than $5,000 and on each subsequent conviction to a fine of not more than $10,000.

Separate offences

(3) Each day that a municipality or person contravenes an order made under subsection 1 constitutes a separate offence. R.S.O. 1970, c. 332, s. 33 (2, 3).

Equipment, etc., to alleviate effects of impairment of quality of water

**34.**—(1) Where, in the opinion of a Director it is in the public interest to do so, the Director may by order require any municipality or industrial or commercial enterprise to have on hand and available at all times such equipment, chemicals and other materials as the order specifies to alleviate the effects of any impairment of the quality of water that may be caused by the municipality or industrial or commercial enterprise. R.S.O. 1970, c. 332, s. 34 (1); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every municipality or industrial or commercial enterprise that contravenes an order of a Director made under subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than $500 for every day the contravention continues. R.S.O. 1970, c. 332, s. 34 (2); 1974, c. 19, s. 2 (*a*).

**35.** REPEALED: 1972, c. 1, s. 70 (24).

Area defined for protection of public water supply

**36.**—(1) An area may be defined by a Director that includes a source of public water supply,

(*a*) wherein no person shall swim or bathe; or

(*b*) wherein no material of any kind that may impair the quality of water therein shall be placed, deposited, discharged or allowed to remain; or

(*c*) wherein no act shall be done and no water shall be taken that may unduly diminish the amount of water available in such area as a public water supply,

and thereupon the municipality or person who has a right to use the water from such source for the purpose of a public water supply shall give notice of the area so defined by publication, posting or otherwise as the Director considers necessary for the protection of the source of public water supply. 1974, c. 19, s. 14.

Offences

(2) Every person,

(*a*) who swims or bathes within an area defined under clause *a* of subsection 1; or

(*b*) who places, deposits, discharges or allows to remain within an area defined under clause *b* of subsection 1 any material of any kind that may impair the quality of the water therein; or

(*c*) who does any act or takes water within an area defined under clause *c* of subsection 1 so that the amount of water available within the area as a public water supply may be unduly diminished,

is guilty of an offence and on summary conviction is liable to a fine of not more than $1,000 or to imprisonment for a term of not more than one year, or to both.

Application

(3) Subsection 2 does not apply where the act or taking of water that may unduly diminish the amount of water available as a public water supply within an area defined under subsection 1 was commenced before the notice of the area is given as required under subsection 1. R.S.O. 1970, c. 332, s. 36 (2, 3).

Interpretation

**37.**—(1) In this section, reference to the taking of water for use for domestic or farm purposes means the taking of water by any person other than a municipality or a company public utility for ordinary household purposes or for the watering of livestock, poultry, home gardens or lawns, but does not include the watering or irrigation of crops grown for sale.

Idem

(2) In subsection 4, the reference to the taking of water for the watering of livestock or poultry does not include the taking of surface water into storage for the watering of livestock or poultry. R.S.O. 1970, c. 332, s. 37 (1, 2).

Taking of water regulated

(3) Notwithstanding any general or special Act or any regulation or order made thereunder and subject to subsection 5, no person shall take more than a total of 10,000 gallons of water in a day,



(*a*) by means of a well or wells that are constructed or deepened after the 29th day of March, 1961; or

(*b*) by means of an inlet or inlets from a surface source of supply, where the inlet or inlets is or are installed in the source of supply or is or are enlarged after the 29th day of March, 1961; or

(*c*) by means of a structure or works constructed after the 29th day of March, 1961 for the diversion or storage of water; or

(*d*) by any combination of the means referred to in clauses *a*, *b* and *c*,

without a permit issued by a Director. R.S.O. 1970, c. 332, s. 37 (3); 1974, c. 19, s. 2 (*b*).

Where taking of water interferes with other person's interest in water

(4) Notwithstanding any general or special Act or any regulation or order made thereunder, where the taking of water for any purpose, other than the taking of water by any person except a municipality or company public utility for use for ordinary household purposes or for the watering of livestock or poultry and other than the taking of water by any person for fire fighting, interferes, in the opinion of a Director, with any public or private interest in any water, the Director may, by notice served on or sent by registered mail to the person who is taking or is responsible for the taking of water that so interferes, prohibit the person from so taking water without a permit issued by the Director. R.S.O. 1970, c. 332, s. 37 (4); 1974, c. 19, s. 2 (*b*).

Application to domestic and farm use

(5) Subsection 3 does not apply to the taking of water by any person for use for domestic or farm purposes or for fire fighting. R.S.O. 1970, c. 332, s. 37 (5).

Permit

(6) A Director may in his discretion issue, refuse to issue or cancel a permit, may impose such terms and conditions in issuing a permit as he considers proper and may alter the terms and conditions of a permit after it is issued. R.S.O. 1970, c. 332, s. 37 (6); 1974, c. 19, s. 2 (*b*).

Flowing or leaking of water from well, etc., regulated

(7) Where the flowing or leaking of water from a well, or the diversion, flowing or release of water from or by means of a hole or excavation made in the ground for any purpose other than the taking of water, interferes, in the opinion of a Director, with any public or private interest in any water, the Director may, by notice served on or sent to the person who constructed or made such well, hole or excavation or to the registered owner of the land in which such well, hole or excavation is located, require the person or owner to stop

or regulate such flowing, leaking, diversion or release of water in such manner and within such time as the Director may direct, or require such person or owner to take such measures in relation to such flowing, leaking, diversion or release of water as the notice may require. R.S.O. 1970, c. 332, s. 37 (7); 1974, c. 19, s. 2 (*b*).

Offences

(8) Every person who contravenes,

(*a*) subsection 3 or 4; or

(*b*) a notice served on him or received by him or on his behalf under subsection 4 or 7; or

(*c*) any of the terms and conditions of a permit issued by a Director,

is guilty of an offence and on summary conviction is liable to a fine of not more than $200 for every day the contravention continues. R.S.O. 1970, c. 332, s. 37 (8); 1974, c. 19, s. 2 (*b*); 1974, c. 19, s. 15.

**38.** REPEALED: 1973, c. 90, s. 3.

Drilling and boring of wells, etc., prohibited in certain areas

**39.**—(1) No person shall make a well or hole in the ground for the purpose of obtaining water, except by digging, in any area designated by the regulations made under this Act, without a permit issued by a Director. R.S.O. 1970, c. 332, s. 39 (1); 1974, c. 19, s. 2 (*b*).

Permit

(2) A Director may in his discretion issue, refuse to issue, or cancel a permit, may impose such terms and conditions in issuing a permit as he considers proper and may alter the terms and conditions of a permit after it is issued. R.S.O. 1970, c. 332, s. 39 (2); 1974, c. 19, s. 2 (*b*).

Offence

(3) Every person who contravenes subsection 1 or any of the terms and conditions of a permit issued by a Director is guilty of an offence and on summary conviction is liable to a fine of not more than $50. R.S.O. 1970, c. 332, s. 39 (3); 1974, c. 19, s. 2 (*b*).

WATER WELL DRILLERS

Licences

**40.**—(1) No person shall carry on the business of boring or drilling wells for water unless he is the holder of a licence therefor from a Director. R.S.O. 1970, c. 332, s. 40 (1); 1974, c. 19, s. 2 (*b*).

Issue and renewal of licences

(2) Upon application therefor in the prescribed form and upon payment of the prescribed fee, a Director may issue or renew, as the case may be, a licence to any person to carry on the business of boring or drilling wells for water. R.S.O. 1970, c. 332, s. 40 (2); 1974, c. 19, s. 2 (*b*).

Expiry

(3) Every such licence and renewal thereof expires on the 31st day of December following the date of issue or renewal. R.S.O. 1970, c. 332, s. 40 (3).

Suspension and cancellation

(4) A Director may suspend or cancel a licence at any time. R.S.O. 1970, c. 332, s. 40 (4); 1974, c. 19, s. 2 (*b*).

Returns

(5) Every licensee shall, within one month after the completion of the boring or drilling of a well for water, make a return to a Director in the prescribed form. R.S.O. 1970, c. 332, s. 40 (5); 1974, c. 19, s. 2 (*b*).

Offence

(6) Every person who contravenes a provision of this section is guilty of an offence and on summary conviction is liable to a fine of not less than $10 and not more than $100. R.S.O. 1970, c. 332, s. 40 (6).

WATER WORKS

Plans for water works to be submitted to Director

**41.**—(1) When any municipality or any person contemplates the establishment of any water works, or the extension of or any change in any existing water works, the plans, specifications and an engineer's report of the water supply and the works to be undertaken, together with such other information as a Director may require, shall be submitted to the Director, and no such works shall be undertaken or proceeded with and no by-law for raising money to finance such works shall be passed until the source of water supply and the proposed works have been approved by the Director. R.S.O. 1970, c. 332, s. 41 (1); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every municipality that or person who contravenes any provision of subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than $2,000. R.S.O. 1970, c. 332, s. 41 (2).

Powers of Director, where water works undertaken without approval

(3) Where any person undertakes or proceeds with the establishment of any water works, or the extension of or change in any existing water works, without having first obtained the approval of a Director, a Director may order the person or his successor or assignee to afford at his own expense such facilities as the Director considers necessary for the investigation of the works and the

source of water supply and may direct such changes to be made in the source of water supply and in the works as the Director considers necessary, and any changes directed by the Director to be made in the works shall be carried out by the person or his successor or assignee at his own expense. 1974, c. 19, s. 16.

Director may refuse or qualify approval

(4) Where in the opinion of a Director it is in the public interest to do so, the Director may refuse to grant his approval or grant his approval on such terms and conditions as he considers necessary. R.S.O. 1970, c. 332, s. 41 (4); 1974, c. 19, s. 2 (*a*).

Offence

(5) Every person, except a municipality, who,

(*a*) fails to comply with any direction or order given or made by a Director under subsection 3; or

(*b*) contravenes any of the terms and conditions of the approval granted by a Director under subsection 4,

is guilty of an offence and on summary conviction is liable to a fine of $500 for every day upon which such default or contravention continues. R.S.O. 1970, c. 332, s. 41 (5); 1974, c. 19, s. 2 (*a*).

Returns from water works

(6) The owner of water works shall whenever required by a Director make returns to the Director, of such matters as may be required by the Director, and any such owner who, for the space of thirty days after being so required, fails or neglects to make the returns required is guilty of an offence and on summary conviction is liable to a fine of not more than $100. R.S.O. 1970, c. 332, s. 41 (6); 1974, c. 19, s. 2 (*a*).

Water works to be kept in repair

(7) Water works shall at all times be maintained, kept in repair and operated in such manner and with such facilities as may be directed from time to time by a Director. R.S.O. 1970, c. 332, s. 41 (7); 1974, c. 19, s. 2 (*a*).

Offence

(8) Every person, except a municipality, who fails to comply with any direction given by a Director under subsection 7 is guilty of an offence and on summary conviction is liable to a fine of $500 for every day upon which such default continues. R.S.O. 1970, c. 332, s. 41 (8); 1974, c. 19, s. 2 (*a*).



Application

(9) Subsections 1 and 3 do not apply,

(*a*) to a water works to be used only for supplying water, for agricultural, commercial or industrial purposes, that is not required under any Act or regulation to be fit for human consumption;

(*b*) to a water works not capable of supplying water at a rate greater than 10,000 gallons per day;

(*c*) to a privately-owned water works to be used to supply water only for five or fewer private residences; and

(*d*) to such water works as may be exempted therefrom by regulations made under this Act. R.S.O. 1970, c. 332, s. 41 (9).

SEWAGE WORKS

Plans for sewage works to be submitted to Director

**42.**—(1) When any municipality or any person contemplates the establishment of any sewage works, or the extension of or any change in any existing sewage works, the plans, specifications and an engineer's report of the works to be undertaken, and the location of the discharge of effluent, together with such information as a Director may require, shall be submitted to the Director, and no such works shall be undertaken or proceeded with and no by-law for raising money to finance such works shall be passed until the proposed works have been approved by the Director. R.S.O. 1970, c. 332, s. 42 (1); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every municipality that or person who contravenes any provision of subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than $2,000. R.S.O. 1970, c. 332, s. 42 (2).

Powers of Director, where sewage works undertaken without approval

(3) Where any person undertakes or proceeds with the establishment of any sewage works, or the extension of or any change in any existing sewage works, without having first obtained the approval of a Director, a Director may order the person or his successor or assignee to afford at his own expense such facilities as the Director considers necessary for the investigation of the works and the location of the discharge of effluent and may direct such changes to be made in the location of the discharge of effluent and in the works as the Director considers necessary, and any changes directed by the Director to be made in the works shall be carried out by the person or his successor or assignee at his own expense. 1974, c. 19, s. 17.

Director may refuse or qualify approval

(4) Where in the opinion of a Director it is in the public interest to do so, the Director may refuse to grant his approval or grant his approval on such terms and conditions as he considers necessary. R.S.O. 1970, c. 332, s. 42 (4); 1974, c. 19, s. 2 (*a*).

Offence

(5) Every person, except a municipality, who,

(*a*) fails to comply with any direction or order given or made by a Director under subsection 3; or

(*b*) contravenes any of the terms and conditions of the approval granted by a Director under subsection 4,

is guilty of an offence and on summary conviction is liable to a fine of $500 for every day upon which such default or contravention continues. R.S.O. 1970, c. 332, s. 42 (5); 1974, c. 19, s. 2 (*a*).

Application

(6) This section does not apply,

(*a*) to a sewage works from which sewage is not to drain or be discharged directly or indirectly into a ditch, drain or storm sewer or a well, lake, river, pond, spring, stream, reservoir or other water or watercourse;

(*b*) to a privately-owned sewage works designed for the partial treatment of sewage that is to drain or be discharged into a sanitary sewer;

(*c*) to a privately-owned sewage works serving only five or fewer private residences;

(*d*) to a sewage works the main purpose of which is to drain agricultural lands;

R.S.O. 1970, cc. 136, 57. 201

R.S.O. 1950, c. 131

(*e*) to a drainage works under *The Drainage Act*, *The Cemeteries Act*, *The Public Transportation and Highway Improvement Act* or *The Railways Act*;

(*f*) to such sewage works as may be exempted therefrom by regulations made under this Act,

but this section does apply to a sewage works for the distribution of sewage on the surface of the ground for the purpose of disposing of the sewage. R.S.O. 1970, c. 332, s. 42 (6); 1971, c. 61, s. 1.

Establishment or extension of sewage works in or into another municipality, etc.

**43.**—(1) Where any municipality contemplates establishing or extending its sewage works in or into another municipality or territory without municipal organization, a Director shall, before giving his approval under section 42, hold a public hearing and give at least ten days notice of the hearing to the clerk of the municipality in or into which the sewage works are being established or extended and to the clerks of such other municipalities and to such other persons and in such manner as the Director may direct. R.S.O. 1970, c. 332, s. 43 (1); 1974, c. 19, s. 2 (*a*).

(2) REPEALED: 1972, c. 1, s. 70 (26).

Powers of municipality after approval

(3) Where a Director has given his approval under section 42 to an establishment or extension under subsection 1, the municipality undertaking the establishment or extension may enter upon, take and use such lands in such other municipality or municipalities or territory without municipal organization as may be necessary, and for that purpose has the same powers within such municipality or municipalities or territory as it has within its own municipality, and paragraph 84 of subsection 1 of section 354 of *The Municipal Act* does not apply. R.S.O. 1970, c. 332, s. 43 (3); 1974, c. 19, s. 2 (*a*).

R.S.O. 1970, c. 284

Director may vary approval

(4) A Director may amend or vary any approval given under section 42 to an establishment or extension under subsection 1, but before so acting the Director shall comply with the requirements of subsection 1 with respect to the holding of a public hearing and the giving of notice thereof. R.S.O. 1970, c. 332, s. 43 (4); 1974, c. 19, s. 2 (*a*).

Application to Board

(5) Where a Director has given his approval under section 42 to an establishment or extension under subsection 1, the municipality undertaking the establishment or extension, before proceeding therewith, may apply to the Board for an order,

(*a*) stopping up and closing any highway, road or road allowance, temporarily or permanently, for the purpose of allowing the establishment or extension to be carried on and vesting it in the municipality undertaking the establishment or extension, and providing for the opening of another highway, road or road allowance in lieu of the highway, road or road allowance so stopped up and closed, and subsection 2 of section 86 of *The Registry Act* does not apply;

R.S.O. 1970, c. 409

(*b*) ordering that any building restrictions, covenants running with the land or any limitations placed upon the estate or interest of any person in any lands upon or through which it is proposed that the establishment or extension may be constructed shall be terminated and shall be no longer operative or binding upon or against any person, and directing that any such order be registered under *The Registry Act*; and

R.S.O. 1970, c. 409

(*c*) fixing the compensation for lands taken or injuriously affected in the construction, maintenance or operation of the establishment or extension,

and notice of the application shall be given to the clerk of the municipality in or into which the sewage works are being established or extended and to the clerks of such other municipalities and to such other persons and in such manner as the Board may direct. R.S.O. 1970, c. 332, s. 43 (5); 1974, c. 19, s. 2 (*a*).

Registration of order

(6) The registration of an order under clause *b* of subsection 5 is a bar to any action or proceeding taken by any person claiming any right or benefit under or by reason of any such restrictions, covenants, interests, estate or title in the lands described in the order.

Agreements as to use

(7) Where sewage works of a municipality are established or extended in or into another municipality, the municipality in or into which the sewage works are established or extended may make an agreement with the owner of the sewage works for the connecting with and the use of the sewage works.

Application by municipality

(8) Where a municipality in or into which sewage works are established or extended is unable to make an agreement under subsection 7, the Board, upon an application authorized by by-law of its council, may confer the right to make use of the sewage works upon the applicant municipality and the inhabitants thereof whose properties may be conveniently served by the sewage works, and prescribe the terms and conditions of such use.

Municipality may collect as taxes amounts agreed or ordered to be paid

(9) Where an agreement is made under subsection 7 or an order is made under subsection 8, the municipality in or into which the sewage works are established or extended may assess, levy and collect as taxes the amounts to be paid under the agreement or order in the same manner and to the same extent as if the municipality itself were



proposing to construct, were constructing or had constructed the works or were operating and maintaining the works.

Application of subss. 1, 2, 4 to person

(10) Subsections 1, 2 and 4 apply *mutatis mutandis* to a person who contemplates extending his sewage works from one municipality into another municipality or into territory without municipal organization. R.S.O. 1970, c. 332, s. 43 (6-10).

Application to Board

(11) Where a Director has given his approval under section 42 to an extension by a person of his sewage works from one municipality into another municipality or into territory without municipal organization the Board may, on application made by the person undertaking the extension, order the amendment of any by-law passed under paragraph 116 of subsection 1 of section 354 of *The Municipal Act* or any by-law passed under section 35 of *The Planning Act* or any official plan to permit the use of the land for the extension. R.S.O. 1970, c. 332, s. 43 (11); 1974, c. 19, s. 2 (*a*).

R.S.O. 1970, cc. 284, 349

Powers of Board

(12) The Board, as a condition of making an order under subsection 11, may impose such restrictions, limitations and conditions respecting the use of land for the extension of the sewage works, not inconsistent with the terms and conditions of the approval of a Director given under section 42, as to the Board may appear necessary or expedient. R.S.O. 1970, c. 332, s. 43 (12); 1974, c. 19, s. 2 (*a*).

Establishment or extension within a municipality of sewage treatment works

**44.**—(1) Where, in any municipality, the municipality or a person contemplates establishing or extending a sewage treatment works within the municipality, a Director may, before giving his approval under section 42, hold a public hearing, in which case the Director shall give at least ten days notice of the hearing to the clerk of the municipality and to such other persons and in such manner as the Director may direct. R.S.O. 1970, c. 332, s. 44 (1); 1974, c. 19, s. 2 (*a*).

(2) REPEALED: 1972, c. 1, s. 70 (27).

Director may vary approval

(3) A Director may amend or vary any approval given under section 42 to an establishment or extension under subsection 1 and, before so acting, the Director may hold a public hearing, in which case he shall give notice thereof in accordance with subsection 1. R.S.O. 1970, c. 332, s. 44 (3); 1974, c. 19, s. 2 (*a*).

Application to Board

(4) Where a Director has given his approval under section 42 to an establishment or extension by a person of sewage treatment works within a municipality the Board may, on application by the person undertaking the establishment or extension, order the amendment of any by-law passed under paragraph 116 of subsection 1 of section 354 of *The Municipal Act* or any by-law passed under section 35 of *The Planning Act* or any official plan to permit the use of land for the establishment or extension. R.S.O. 1970, c. 332, s. 44 (4); 1974, c. 19, s. 2 (*a*).

R.S.O. 1970, cc. 284, 349

Powers of Board

(5) The Board, as a condition of making an order under subsection 4, may impose such restrictions, limitations and conditions respecting the use of land for the establishment or extension of the sewage treatment works not inconsistent with the terms and conditions of the approval of a Director given under section 42, as to the Board may appear necessary or expedient. R.S.O. 1970, c. 332, s. 44 (5); 1974, c. 19, s. 2 (*a*).

Application of s. 43, subss. 11, 12, and s. 44, subss. 4, 5, to municipality

**45.** Subsections 11 and 12 of section 43 and subsections 4 and 5 of section 44 apply *mutatis mutandis* to a municipality that has obtained the approval of a Director to the establishment or extension of its sewage works or to the establishment or extension of sewage treatment works. R.S.O. 1970, c. 332, s. 45; 1974, c. 19, s. 2 (*a*).

Powers of Board

**46.** The Board may inquire into, hear and determine any application by or on behalf of any municipality or person complaining that any municipality constructing, maintaining or operating sewage works or having the control thereof,

(*a*) has failed to do any act, matter or thing required to be done by an Act or regulation, order or direction, or by any agreement entered into with the municipality; or

(*b*) has done or is doing any such act, matter or thing improperly,

and that the same is causing deterioration, loss, injury or damage to property, and the Board may make any order, award or finding in respect of any such complaint as it considers just. R.S.O. 1970, c. 332, s. 46.

Right to compensation

**47.** Where land is expropriated by a municipality for sewage works or is injuriously affected by the construction, maintenance or operation of sewage works by a municipality, *The Expropriations Act* applies. R.S.O. 1970, c. 332, s. 47.

R.S.O. 1970, c. 154

Construction or operation of approved sewage works by statutory authority

**48.** Sewage works that are being or have been constructed, maintained or operated with the approval of the former Department of Health, the Commission, the Executive Director, Water Supply and Pollution Control of the Ministry or of a Director and in accordance with the terms and conditions imposed in any order, direction, report or regulation of the former Department of Health, the Commission, the Minister of Health, the Executive Director, Water Supply and Pollution Control of the Ministry, a Director or the Board under the authority of this Act or any predecessor of any provision of this Act, so long as the sewage works are being so constructed or are so constructed, maintained or operated, shall be deemed to be under construction, constructed, maintained or operated by statutory authority. 1974, c. 19, s. 18.

Returns by owner to Director

**49.** The owner of sewage works shall whenever required by a Director make returns to the Director of such matters as may be required by the Director, and any such owner who for the space of thirty days after being so required fails or neglects to make the returns required is guilty of an offence and on summary conviction is liable to a fine of not more than $100. R.S.O. 1970, c. 332, s. 49; 1974, c. 19, s. 2 (*a*).

Sewage works to be kept in repair

**50.**—(1) Sewage works shall at all times be maintained, kept in repair and operated in such manner and with such facilities as may be directed from time to time by a Director. R.S.O. 1970, c. 332, s. 50 (1); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every person, except a municipality, who fails to comply with any direction given by a Director under subsection 1 is guilty of an offence and on summary conviction is liable to a fine of $500 for every day upon which such default continues. R.S.O. 1970, c. 332, s. 50 (2); 1974, c. 19, s. 2 (*a*).

Duty to maintain, etc., works

**51.**—(1) Where a Director reports in writing to the clerk of a municipality that he is of the opinion that it is necessary in the public interest that water works or sewage works or any part thereof be established, maintained, operated, improved, extended, enlarged, altered, repaired or replaced, it is not necessary to obtain the assent of the electors to any by-law for incurring a debt for any such purpose and the municipality shall forthwith do every act and thing in its power to implement the report of the Director. R.S.O. 1970, c. 332, s. 51 (1); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every municipality that fails to do every act and thing in its power to implement a report made to it under subsection 1 forthwith after receipt of the report is guilty of an offence and on summary conviction is liable to a fine of $500 for every day upon which such default continues after receipt of the report. R.S.O. 1970, c. 332, s. 51 (2).

Power of Director to implement report

(3) Where the municipality fails to do every act and thing in its power to implement a report made to it under subsection 1 forthwith after receipt of the report, and the time for taking an appeal has passed or there has been final disposition of an appeal by which the report is confirmed or altered, the Director, with the approval of the Board, may direct that whatever is necessary to implement the report or the report as confirmed or altered be done at the expense of the municipality, and the Minister may recover the expense incurred in doing it, with costs, by action in a court of competent jurisdiction, as a debt due to the Crown by such municipality. 1974, c. 19, s. 19.

PROJECTS

Application for water or sewage works

**52.**—(1) Any one or more municipalities may apply to the Minister for the provision of and operation by the Minister of water works or sewage works for the municipality or municipalities. R.S.O. 1970, c. 332, s. 52 (1); 1972, c. 1, s. 70 (2).

Duty of Minister

(2) The Minister may thereupon furnish to such municipality or municipalities,

(*a*) an estimate of the cost of the project and such other information as the Minister considers advisable;

(*b*) a statement of the terms and conditions including the method of financing as determined by the Minister upon which the Minister will complete and operate the project; and

(*c*) a form of agreement to be entered into between the municipality or municipalities and the Crown. R.S.O. 1970, c. 332, s. 52 (2); 1972, c. 1, s. 70 (2, 3); 1974, c. 19, s. 20.

Power to make agreement

(3) The council of any municipality may by by-law authorize the municipality to enter into such an agreement with the Crown and, subject to the approval of the Lieutenant Governor in Council, the Crown may enter into any such agreement with any municipality or municipalities



and, when such an agreement has been entered into, the parties thereto have all such powers as may be necessary to carry out the provisions thereof or of any undertaking given pursuant thereto. R.S.O. 1970, c. 332, s. 52 (3); 1972, c. 1, s. 70 (3).

Assent of electors not required R.S.O. 1970, c. 284

(4) Notwithstanding *The Municipal Act* or any other Act, it is not necessary for the council of any municipality to obtain the assent of the electors to the passing of any such by-law or the entering into of any such agreement with the Crown. R.S.O. 1970, c. 332, s. 52 (4); 1972, c. 1, s. 70 (3).

Minister to act for municipality for approval of Board

(5) Where a municipality that proposes to enter into an agreement with the Crown is required to obtain the approval of the Board with respect to any aspect of the proposed project, the application for such approval shall be made by the Minister on behalf of the municipality. R.S.O. 1970, c. 332, s. 52 (5); 1972, c. 1, s. 70 (2, 3).

Term of agreement

(6) Notwithstanding any other Act, every such agreement remains in force for such period as it may prescribe and in any event until all obligations to the Crown of the municipality or municipalities party or parties to the agreement have been discharged to the satisfaction of the Minister. R.S.O. 1970 c. 332, s. 52 (6); 1972, c. 1, s. 70 (2, 3).

Agreement binding on local board

(7) Where a municipality has entered into an agreement with the Crown under this section, the agreement is binding on any commission or local board having the control and management of water works or sewage works, as the case may be, in the municipality. R.S.O. 1970, c. 332, s. 52 (7); 1972, c. 1, s. 70 (3).

Form of agreement

(8) Any agreement under this section may be evidenced by one or more documents. R.S.O. 1970, c. 332, s. 52 (8).

Payments by municipalities to Treasurer under agreement

**53.**—(1) Every municipality that has entered into an agreement with the Crown under section 52 before the 1st day of April, 1974 shall pay to the Treasurer the following sums or, where such agreement is with more than one municipality, or where the project requires more than one agreement at least one of which is with a municipality, its share as adjusted by the Minister, of the following sums:

1. In each calendar year during the currency of such agreement, commencing with the calendar year in which occurs the date of completion of such project,

(*a*) the proportion payable by the municipality or municipalities party or parties to the

project, as adjusted by the Minister, of the total amount of interest and expenses of debt service that would be payable by the Commission in each such year if the Commission were not dissolved in respect of all borrowings of the Commission from time to time outstanding and made by the Commission at any time before or after the making of such agreement for the purpose of meeting,

(i) the cost or estimated cost of all projects, except projects under agreements referred to in subsection 2, or

(ii) the cost or estimated cost of all projects referred to in subsection 2,

at any time theretofore or thereafter acquired, provided or constructed or in course of acquisition, provision or construction by the Commission pursuant to any agreement or agreements, or for any other purpose of the Commission respecting such projects, including the refunding or repayment in whole or in part of any such borrowings;

(*b*) the total cost to the Crown in each such year of the operation, supervision, maintenance, repair, administration and insurance of such project; and

(*c*) the total amount in each such year placed by the Minister to the credit of the reserve account referred to in subsection 1 of section 57 in respect of such project or an amount equal to 1½ per cent of the cost of such project, whichever is less, and such additional amount as may be approved by the municipality or municipalities.

2. In each calendar year for such period of years as may be prescribed by such agreement, commencing not later than the fifth calendar year next following the date of completion of such project, such sum as would be necessary with interest compounded annually thereon at such rate as is prescribed by regulation to form at the expiry of such period of years a fund equal to the cost of such project. 1972, c. 1, s. 70 (3); 1974, c. 19, s. 21 (1).

Interest and expenses of debt service

(2) In respect of agreements under section 52 entered into after the 31st day of December, 1965 and before the 1st day of April, 1974, the interest and expenses of debt service that would be payable by the Commission referred to in clause *a* of paragraph 1 of subsection 1 shall, in each year during the currency of the agreement, be the amount calculated by applying the average rate of such interest and expenses as would have been payable to the Treasurer in respect of the project.

Annual adjustment of payments

(3) The Minister shall annually adjust and apportion among the respective municipalities the sums payable to the Treasurer by such municipalities under subsection 1. 1974, c. 19, s. 21 (2).

Settlement of disputes

(4) In the event of any dispute arising as to the adjustment or apportionment of any sums payable to the Treasurer by the respective municipalities under subsection 1, such dispute shall be referred to a sole arbitrator to be appointed by the Lieutenant Governor in Council, and the award of the arbitrator is final and binding on the Crown and the Treasurer and the municipality or municipalities concerned. R.S.O. 1970, c. 332, s. 53 (4); 1972, c. 1, s. 70 (2, 33); 1974, c. 19, s. 2 (*e*).

Costs

(5) Such arbitrator shall be paid for his services such amount as may be directed by the Lieutenant Governor in Council and the whole costs of such arbitration shall be paid as directed by the arbitrator in his award.

R.S.O. 1970, c. 286, to apply

(6) Except as otherwise provided in this section, *The Municipal Arbitrations Act* applies to any arbitration under subsection 4. R.S.O. 1970, c. 332, s. 53 (5, 6).

Sewer rates and water works rates

**54.**—(1) The council of a municipality that has entered into or proposes to enter into an agreement with the Crown under section 52 may by by-law, subject to the approval of the Board, provide for imposing upon owners or occupants of land who derive or will or may derive a benefit from the project a sewer rate or water works rate, as the case may be, sufficient to pay the whole or such portion as the by-law may specify of the annual payments to the Treasurer required to be made,

(*a*) where the agreement is or has been entered into before the 1st day of April, 1974, under clause *a* of paragraph 1 and paragraph 2 of subsection 1 of section 53; or

(*b*) where the agreement is entered into on or after the 1st day of April, 1974, under the agreement for the cost of the project,

and, with the like approval, such by-law may from time to time be amended or repealed. 1974, c. 19, s. 22, *part*.

Commutation of rates

(2) Where a by-law under subsection 1 imposes a sewer rate or water works rate upon owners or occupants of land, the council of the municipality may provide for commutation for a payment in cash of the whole or any part of the rate imposed and may prescribe the terms and conditions thereof. R.S.O. 1970, c. 332, s. 54 (2).

Sewage service rate and water service rate

(3) The council of a municipality that has entered into or proposes to enter into an agreement with the Crown under section 52 may by by-law provide for imposing upon owners or occupants of land from which sewage is received, treated or disposed of or to which water is supplied through or by the project a sewage service rate or water service rate, as the case may be, sufficient to pay the whole or such portion as the by-law may specify of the annual payments to the Treasurer required to be made,

(*a*) where the agreement is or has been entered into before the 1st day of April, 1974, under clauses *b* and *c* of paragraph 1 of subsection 1 of section 53; or

(*b*) where the agreement is entered into on or after the 1st day of April, 1974, under the agreement for,

(i) the total cost to the Crown in each year of the operation, supervision, maintenance, repair, administration and insurance of the project, and

(ii) the total amount in each year placed by the Minister to the credit of any reserve account established under the agreement for the project. 1974, c. 19, s. 22, *part*.

Application of R.S.O. 1970, c. 284, s. 362

(4) Subject to this section, section 362 of *The Municipal Act* applies *mutatis mutandis* to sewer rates and sewage service rates imposed under this section.



Idem

(5) Every water works rate or water service rate imposed under this section shall, in so far as is practicable and subject to this section, be imposed in the same manner and with and subject to the same provisions as apply to a water works rate or sewage service rate, respectively, under section 362 of *The Municipal Act*, and that section applies *mutatis mutandis* to the imposition of such rates. R.S.O. 1970, c. 332, s. 54 (4, 5).

R.S.O. 1970, c. 284

Cost of construction of service drains

**55.** Where an agreement is made with a municipality for the provision of sewers under subsection 1*a* of section 17 or under section 52, the municipality may charge the owner of the premises for which a service drain is constructed the cost of construction of the service drain from the sewer to the line of the highway, together with interest thereon at a rate to be determined by the municipality, over such period of years as the municipality determines. R.S.O. 1970, c. 332, s. 55; 1972, c. 1, s. 70 (34).

When payments to be made

**56.**—(1) As soon as practicable in each calendar year, and in any event not later than the 15th day of February, the Minister shall estimate the respective amounts payable to the Treasurer in such calendar year by each of the municipalities having agreements with the Crown under section 52 entered into before the 1st day of April, 1974 and shall by his precept directed to each municipality require such municipality to pay to the Treasurer on the dates specified in the agreement the sums so payable by each municipality and the municipality shall make payment to the Treasurer accordingly, but in the calendar year in which occurs the date of completion of the project the estimate by the Minister may be made and the precept of the Minister may be delivered at any time in such year as the Minister may determine and the payment or payments by the municipality shall be made at such time or times as the Minister may require.

Adjustment

(2) At the end of each calendar year, the actual sums payable by each municipality to the Treasurer for such year for the purposes aforesaid shall be ascertained by the Minister and the Minister shall inform the municipality of the amount owing to or by it and such amount shall be deducted from or added to the first payment to be made by the municipality in the next calendar year. 1974, c. 19, s. 23 (1).

Delivery

(3) The mailing by the Minister of the precepts by registered mail in envelopes addressed to the clerks of the respective municipalities constitutes delivery of the precepts to them. R.S.O. 1970, c. 332, s. 56 (3); 1972, c. 1, s. 70 (2).

Prepayment

(4) A municipality may pay and the Treasurer may accept,

(*a*) in advance of the time that it would otherwise be payable, any sum in respect of any sum mentioned in section 53; and

(*b*) any sum to reduce the cost of a project. R.S.O. 1970, c. 332, s. 56 (4); 1974, c. 19, s. 2 (*e*).

Municipalities may raise moneys for agreements

(5) For the purpose of meeting the periodic payments to the Treasurer under an agreement entered into under section 52, a municipality may raise money by any method or methods authorized by law or by any combination thereof as if the municipality itself were proposing to construct, were constructing or had constructed the works or were operating and maintaining the works. R.S.O. 1970, c. 332, s. 56 (5); 1974, c. 19, s. 23 (2).

Reserve accounts

**57.**—(1) The Minister may establish and maintain a reserve account in respect of each project under section 52,

(*a*) to provide for renewals and replacements in respect of the project;

(*b*) to provide for contingencies in respect of such project; and

(*c*) to provide for capital expenditures for the improvement of the project in relation to its operation and appearance,

and for such purposes may place to the credit of or charge to such reserve accounts such amounts as may in the opinion of the Minister be sufficient therefor.

When moneys may be expended in respect of another project

(2) Notwithstanding subsection 1, where a reserve account has been established in respect of a project, the Minister may, in respect of any other project for the same municipality, charge to such reserve account such amounts as in the opinion of the Minister may be sufficient therefor for any of the purposes mentioned in clauses *a*, *b* and *c* of subsection 1. 1974, c. 19, s. 24 (1).

(3, 4) REPEALED: 1974, c. 19, s. 24 (2).

Ministry of the Environment Reserve Fund

**57*a*.**—(1) All amounts heretofore placed and remaining or hereafter placed to the credit of all reserve accounts under any agreements under this Act shall be deposited with the Treasurer to the credit of a special consolidated account in the Consolidated Revenue Fund to be called "Ministry of the Environment Reserve Account" and the interest applicable in each year to the consolidated account as determined by the Treasurer shall be allocated and credited by the Minister at the end of each year to each reserve account proportionately having regard to the respective balances from time to time remaining to the credit of the respective reserve accounts.

Idem

(2) The accounts of the Minister with respect to the reserve accounts referred to in subsection 1 shall be kept so as to exhibit at all times the amounts placed to the credit of each reserve account, the interest credited thereon and the payments made in respect thereof. 1974, c. 19, s. 25.

Ministry of the Environment Debt Retirement Account

**58.**—(1) All amounts heretofore placed and remaining or hereafter placed to the credit of all municipalities with respect to all moneys received from the municipalities under paragraph 2 of subsection 1 of section 53 shall be deposited with the Treasurer to the credit of a special consolidated account in the Consolidated Revenue Fund to be called "Ministry of the Environment Debt Retirement Account" and that part of the amounts so credited as is attributable to each project shall remain as a credit in the Ministry of the Environment Debt Retirement Account until the expiration of the period of years during which payments are required to be made in respect of such project under paragraph 2 of subsection 1 of section 53.

Idem

(2) The interest applicable in each year to the consolidated account as determined by the Treasurer shall be allocated and credited by the Minister at the end of each year to the respective projects proportionately having regard to the respective balances in the consolidated account from time to time attributable to such projects and the accounts of the Minister with respect to such projects shall be kept so as to exhibit at all times the amounts placed to the credit of each project, the interest credited thereon and the payments made in respect thereof.

Discontinuance of further payments

(3) If at any time the amount in the consolidated account attributable to any project is, in the opinion of the Minister, sufficient with the further estimated interest thereon to form at the expiration of the period of years referred to in paragraph 2 of subsection 1 of section 53 an amount equal to the cost of the project, the Minister, subject to subsection 4 of this section and with the consent of the Treasurer, may authorize the municipality or municipalities with whom the Crown has an agreement in respect of such project to discontinue any further payments under paragraph 2 of subsection 1 of section 53.

Excess or deficiency

(4) If at the expiration of such period of years the amount in the consolidated account attributable to any project,

(*a*) is in excess of the cost of the project, the Treasurer shall within one year thereafter repay to such municipality or municipalities the amount of such excess; or

(*b*) is less than the cost of the project, the municipality or municipalities shall, within one year thereafter, pay to the Treasurer the amount of such deficiency.

Discharge of indebtedness to Province

(5) Notwithstanding any other provision of this Act, the Treasurer may at any time, upon the request of the Minister, pay to the Province out of the Ministry of the Environment Debt Retirement Account any sum attributable to any project in payment or part payment of the amount owing to the Crown for the cost of the project. 1974, c. 19, s. 26.

Ontario Water Resources Reserve and Debt Retirement Accounts

**59.** All moneys in the Ontario Water Resources Reserve Account and the Ontario Water Resources Debt Retirement Account immediately before this section comes into force and all investments derived from moneys at any time in those accounts vest in the Crown and the Crown is bound by the liabilities in respect of such moneys and investments. 1974, c. 19, s. 27.

Annual payments to municipalities in lieu of taxes

R.S.O. 1970, c. 32

**60.** For the purposes of section 35 of *The Assessment Act*, the Crown, with respect to any project in a city, town, village or township, shall be deemed a commission under clause *a* of subsection 1 of that section and the project shall be deemed a public utility under clause *b* of subsection 1 of that section. R.S.O. 1970, c. 332, s. 60; 1972, c. 1, s. 70 (3).

PUBLIC WATER OR SEWAGE SERVICE AREA

Interpretation

**61.**—(1) In this section,

(*a*) "sewage service" means the acceptance, collection, transmission, storage, treatment and disposal of sewage, or any one or more of them;

(*b*) "water service" means the taking, collection, production, treatment, storage, supply, transmission, distribution, sale, purchase and use of water, or any one or more of them. R.S.O. 1970, c. 332, s. 61 (1).



Area of public water or sewage service

(2) Notwithstanding any general or special Act or any regulation or order made thereunder, where, in the opinion of a Director, it is in the public interest to do so, the Director may make an order defining and designating an area as an area of public water service or an area of public sewage service, and, by order from time to time, for the purpose of controlling, regulating, prohibiting, requiring or providing water service or sewage service in the area, may,

(*a*) impose such terms and conditions in the area as the Director considers necessary;

(*b*) require that any contract with respect to water service or sewage service in the area be terminated or amended in accordance with the order; and

(*c*) fix and impose rates or charges upon any municipality or person in the area for the provision by the Minister of water service or sewage service to the municipality or person. R.S.O. 1970, c. 332, s. 61 (2); 1972, c. 1, s. 70 (2, 40); 1974, c. 19, s. 2 (*c*).

Termination or amendment of contracts

(3) Where an order is made by a Director requiring that any contract be terminated or amended, such contract shall be deemed to be terminated and no longer operative or binding upon or against any municipality or person or shall be deemed to be amended, as the case may be, in accordance with the order. R.S.O. 1970, c. 332, s. 61 (3); 1974, c. 19, s. 2 (*c*).

Hearing

(4) A Director shall, before making an order under subsection 2, hold a public hearing and give at least twenty-one days notice of the hearing to the clerk of such municipality or municipalities and to such person or persons and in such manner as the Director may direct. R.S.O. 1970, c. 332, s. 61 (4); 1974, c. 19, s. 2 (*c*).

Amending order

(5) A Director may amend the terms and conditions in any order, and may amend the definition or designation of an area in any order, but, before amending the definition or designation of an area, the Director shall comply with the requirements of subsection 4 with respect to the holding of a hearing and the giving of notice thereof. R.S.O. 1970, c. 332, s. 61 (5); 1972, c. 1, s. 70 (41); 1974, c. 19, s. 2 (*c*).

(6) REPEALED: 1972, c. 1, s. 70 (42).

Copies of order

(7) A copy of an order of a Director made under this section shall be sent by the Director by registered mail to the clerk of every municipality and to every person named in the order, and to such other persons as the Director may direct. R.S.O. 1970, c. 332, s. 61 (7); 1972, c. 1, s. 70 (43); 1974, c. 19, s. 2 (*c*).

Petition re definition of area

(8) Upon the petition of,

(*a*) any municipality affected by an order under this section;

(*b*) any person who is a party to a contract terminated or amended by an order under this section; or

(*c*) any owner or occupant of land in an area of public water service or an area of public sewage service who is affected by an order under this section in a different manner and to a different extent than all other owners or occupants of land in the area,

filed with the Clerk of the Executive Council within twenty-eight days after the mailing of copies of the order under subsection 7, the Lieutenant Governor in Council may confirm, vary or rescind the definition or designation of the area in the order, and such confirmation, variation or rescission is binding upon a Director and such municipality, person, owner or occupant. R.S.O. 1970, c. 332, s. 61 (8); 1974, c. 19, s. 2 (*c*).

Compensation

(9) Where a contract is terminated or amended by an order under this section, the Crown shall make due compensation to any municipality or person named in the contract as a party thereto for any damage necessarily resulting from the termination or amendment of the contract, as the case may be, beyond any advantage that it or he may derive from water service or sewage service provided under the order. R.S.O. 1970, c. 332, s. 61 (9); 1972, c. 1, s. 70 (3).

Determination of compensation

R.S.O. 1970, c. 323

(10) Subject to this section, a claim for compensation, if not agreed upon by a Director and the municipality or person making the claim, shall be determined by the Board and not otherwise, and *The Ontario Municipal Board Act*, except section 94, applies as far as is practicable to every such claim. R.S.O. 1970, c. 332, s. 61 (10); 1974, c. 19, s. 2 (*c*).

Municipality may raise money for payments under order

(11) For the purpose of meeting periodic payments to the Treasurer under an order made under this section, a municipality may raise money by any method or methods authorized by law or by any combination thereof as if the municipality itself were proposing to construct, were constructing or had constructed water works or sewage works or were operating and maintaining water works or sewage works. R.S.O. 1970, c. 332, s. 61 (11); 1974, c. 19, s. 2 (*e*).

Rates in defined area

(12) For the purpose of meeting periodic payments to the Treasurer under an order made under this section, a municipality may, with the approval of the Board, by-law define an area that in the opinion of the council of the municipality will derive a benefit from the water service or sewage service provided under the order and may impose a rate or charge upon the owners or occupants of all land in such defined area. R.S.O. 1970, c. 332, s. 61 (12); 1974, c. 19, s. 2 (*e*).

Offence

(13) Every municipality or person who contravenes any order made under this section is guilty of an offence and on summary conviction is liable to a fine of $500 for every day upon which such contravention continues. R.S.O. 1970, c. 332, s. 61 (13).

Petition re rates and charges

(14) Upon the petition of any municipality or person required to pay a rate or charge imposed by an order under this section, filed with the Clerk of the Executive Council within twenty-eight days after the mailing of copies of the order under subsection 7, the Lieutenant Governor in Council may confirm, vary or rescind such rate or charge or may refer the petition to the Board or to such person or persons as the Lieutenant Governor in Council may designate, and the Board or such person or persons may confirm, vary or rescind such rate or charge, and any order made by the Lieutenant Governor in Council or the Board or such person or persons with respect thereto is binding upon the Treasurer and a Director and the municipality and person required to pay such rate or charge. R.S.O. 1970, c. 332, s. 61 (14); 1972, c. 1, s. 70 (44); 1974, c. 19, s. 2 (*c*, *e*).

REGULATIONS

Regulations

**62.**—(1) Subject to the approval of the Lieutenant Governor in Council, the Minister may make regulations,

(*a*) regulating and controlling the location, construction, repair, removal or alteration of mains, service

pipes, valves, hydrants and all other works in or upon public property that form part of or are connected with water works;

(*b*) regulating and controlling the manner in which the service pipes of users of water shall be connected with the mains of the water works supplying the water;

(*c*) regulating and controlling the location, construction, repair, removal or alteration of sewers, drain pipes, manholes, gully traps and all other works in or upon public property that form part of or are connected with sewage works;

(*d*) regulating and controlling the manner in which building sewers shall be connected with sewage works;

(*e*) prescribing the rate of interest for the purpose of paragraph 2 of subsection 1 of section 53;

(*f*) regulating and controlling the location, construction, repair, renewal or alteration of plumbing and the material to be used in the construction thereof, and requiring municipalities to carry out such inspections with respect to plumbing as may be prescribed;

(*g*) adopting by reference, in whole or in part, with such changes as the Minister of Consumer and Commercial Relations considers necessary, the standards made or adopted by the Canadian Standards Association respecting pipes, fittings, fixtures and materials used in plumbing, and providing for the testing and marking of such pipes, fittings, fixtures and materials or any class or classes thereof by the Canadian Standards Association and prohibiting the use in plumbing of such pipes, fittings, fixtures and materials that are not marked as approved by the Canadian Standards Association;

(*h*) defining plumbing for the purposes of the regulations;

(*i*) regulating and controlling the content of sewage entering sewage works;

(*j*) classifying persons who operate water works, and sewage works and requiring and providing for the licensing of water work and sewage work



operators or any class or classes thereof, and prescribing the qualifications of persons to whom licences may be issued, and prescribing and charging fees for such licences, and providing for the revocation and suspension of licences;

(*k*) prescribing standards of quality for potable and other water supplies, sewage and industrial waste effluents, receiving streams and water courses;

(*l*) specifying any matter or substance as sewage for the purposes of any section or sections of this Act or of any regulation made thereunder;

(*m*) prescribing operating standards for water works or sewage works;

(*n*) requiring and regulating the storage, treatment and disposal of sewage in boats and ships or any class or classes thereof and the equipment therefor, and prohibiting the use and installation of equipment for the storage, treatment or disposal of sewage in boats and ships or any class or classes thereof unless the equipment and installation thereof conform to the regulations, and providing for and requiring the approval of a Director for any such equipment, and prohibiting and regulating the discharge of sewage from such boats and ships or any class or classes thereof;

(*o*) regulating and controlling, for the purpose of preventing or reducing the pollution of any body of water or watercourse, places or any class or classes thereof located on or adjacent to any body of water or watercourse where moorings are provided for boats or ships or where any services are provided for boats or ships or the occupants thereof, and regulating and governing persons providing such moorings or services, or any class or classes thereof;

(*p*) defining sewage for the purposes of regulations made under clauses *n* and *o*;

(*q*) designating areas within which wells or holes may not be made for the purpose of obtaining water, except by digging, without a permit issued by a Director;

(*r*) regulating and controlling the location, spacing, boring and drilling of water wells, the construction

and materials used in the construction, alteration or repair of water wells, the pumps and other equipment used in connection with water wells, the use of water wells, the abandonment of water wells, the cleansing and disinfecting of water wells, prescribing the records and the form of the records with respect to water wells that shall be kept by the owners thereof and defining "owner" for the purpose of this clause;

(*s*) requiring and providing for the licensing of persons who operate equipment for the boring or drilling of wells for water and prescribing the qualifications of persons to whom licences may be issued, and prescribing and charging fees for such licences, and providing for the revocation and suspension of licences;

(*t*) prescribing the forms required for the purposes of section 40 and the fees for licences authorized thereby and for the renewal of such licences, and prescribing the terms and conditions upon which such licences may be issued;

. . . . .

(*v*) regulating and controlling the use of water from any source of supply;

(*w*) exempting any sewage works or any class or type thereof from section 42 and any water works or any class or type thereof from subsections 1 and 3 of section 41;

(*x*) providing for a grievance board and prescribing its jurisdiction, powers and duties, including any powers of a commission under Part II of *The Public Inquiries Act, 1971* designating the classes of its employees that may grieve, and prescribing the procedures to be followed for hearing and dealing with grievances;

1971, c. 49

(*y*) respecting any matter necessary or advisable to carry out effectively the intent and purpose of this Act. R.S.O. 1970, c. 332, s. 62 (1); 1971, c. 49, s. 18; 1972, c. 1, s. 70 (2, 5); 1973, c. 90, s. 4; 1974, c. 19, s. 2 (*a*, *b*); 1974, c. 19, s. 28; O. Reg. 54/76.

Application of regulations

(2) The application of any regulation made under this section may be general or may be limited territorially or as to time or otherwise.

(3) Every municipality or person who contravenes any regulation made under this section is guilty of an offence and on summary conviction is liable to a fine of not less than $25 and not more than $1,000. R.S.O. 1970, c. 332, s. 62 (2, 3).

Plumbing inspection by local municipality or local board of health

**63.**—(1) Where a local municipality undertakes to carry out inspections with respect to plumbing as prescribed by regulations made under section 62, the local municipality and the local board of health of the municipality or, where a local board of a health unit has jurisdiction in the municipality, the local board of the health unit may enter into agreements providing that the local board shall carry out such inspections upon such terms and conditions as may be agreed upon.

by county or health unit

(2) Where a county council by a two-thirds vote provides that such inspections shall be carried out by the county, such inspections shall be carried out in the municipalities that form part of the county for municipal purposes only by the county, provided that, where there is a health unit in the county, the county and the local board of the health unit may enter into agreements providing that the board shall carry out such inspections upon such terms and conditions as may be agreed upon.

by county and health unit

(3) Where a county and a local board of a health unit have entered into an agreement under subsection 2 and the local board does not have jurisdiction in all of the municipalities that form part of the county for municipal purposes, the county shall carry out such inspections in the municipalities that do not form part of the health unit. R.S.O. 1970, c. 332, s. 63; O. Reg. 54/76.

Plumbing inspection by-laws

**64.**—(1) Where a local municipality, a county or a local board of health or the local board of a health unit undertakes under section 63 or the regulations made under section 62 or under an agreement to inspect plumbing, the municipality or local board, as the case may be, may pass by-laws,

(*a*) providing for such inspections and for appointing one or more inspectors for such purpose;

(*b*) for charging fees for such inspections and fixing the amounts thereof;

(*c*) for requiring the production of plans of plumbing that is to be constructed, repaired, renewed or altered and of the location of drains, pipes, traps

and other works or appliances that are or are to be part of or connected with the plumbing, and for charging fees for the inspection and approval of such plans, and fixing the amount of the fees; and for the issuing of a permit certifying to such approval and requiring that without such permit no such plumbing may be constructed, repaired, renewed or altered;

(*d*) for prohibiting the use of such plumbing until it has been inspected and found to conform to the regulations made under clause *f* of subsection 1 of section 62.

Penalties R.S.O. 1970, c. 284

(2) Subject to section 72, Part XXI of *The Municipal Act* applies *mutatis mutandis* to by-laws passed under this section.

Inspector may enter premises

(3) An inspector may at all reasonable hours enter any premises to inspect plumbing to which the regulations made under section 62 are applicable, and every person who prevents or obstructs or attempts to prevent or obstruct any such entry or inspection is guilty of an offence and on summary conviction is liable to a fine of not more than $25. R.S.O. 1970, c. 332, s. 64; O. Reg. 54/76.

Interpretation

**65.**—(1) In this section, "owner" includes the person for the time being managing or receiving the rent of or paying the municipal taxes on the land or premises in connection with which the word is used whether on his own account or as agent or trustee of any other person or who would so receive the rent if such land and premises were let.

Owner may be required to make plumbing conform to code

(2) Where a person has been convicted of constructing, repairing, renewing or altering plumbing in a manner that does not conform to the regulations made under section 62 and the time for appealing such conviction has elapsed and no appeal from such conviction is pending, the municipality or local board responsible for inspecting such plumbing may, by notice sent by registered mail to the owner of the land and premises in which the plumbing is located, require him to make the plumbing conform to such regulations within such period as may be stated in the notice.

Notice

(3) The notice shall specify wherein the plumbing does not conform to the regulations and that, if it is not made to conform within the period stated in the notice, the work may be done by the municipality or local board in accordance with subsection 4.



Work may be done by municipality

(4) If the owner of the land and premises does not comply with the notice, the municipality or local board that sent the notice may, at the expense of the owner, make the plumbing conform to the regulations, and for that purpose its servants and agents may from time to time enter upon the land and premises.

Collection of expenses

(5) The municipality or local board that caused the work to be done to make the plumbing conform has a lien for the amount expended by it or on its behalf together with interest at the rate of 6 per cent per annum upon the land and premises in which the plumbing is located, and the municipality or local board may direct that such amount with interest be added to the collector's roll of the local municipality in which the land and premises are situated and collected in like manner as municipal real property taxes and paid over to the municipality or local board, as the case may be. R.S.O. 1970, c. 332, s. 65; O. Reg. 54/76.

Plumbing provisions in by-laws

**66.** Notwithstanding any general or special Act, no provision of a by-law of a municipality, heretofore or hereafter passed, with respect to any matter that may be dealt with by regulation under clauses *f*, *g* and *h* of subsection 1 of section 62 has any force or effect. R.S.O. 1970, c. 332, s. 66; O. Reg. 54/76.

## MISCELLANEOUS

Multiple informations

**67.** An information in respect of any contravention of this Act may be for one or more offences and no information, summons, warrant, conviction or other proceeding in any such prosecution is objectionable or insufficient by reason of the fact that it relates to two or more offences. R.S.O. 1970, c. 332, s. 67.

Certificate of analyst as evidence

**68.** In any prosecution under this Act or the regulations or in any proceeding in the Supreme Court under this Act, the production of a certificate or report of an analyst of the Ministry as to the analysis, ingredients or quality of any water or of any material, whether liquid, gaseous or solid or of any combination thereof, is *prima facie* evidence of the facts stated therein and of the authority of the person making the certificate or report without any proof of appointment or signature. R.S.O. 1970, c. 332, s. 68; 1972, c. 1, s. 70 (46).

Sewage disposal

**69.**—(1) If an industrial or commercial enterprise makes arrangements for the collection, transmission, treatment or disposal of sewage that are considered unsatisfactory by a

Director, the Director may require such industrial or commercial enterprise,

(*a*) to make investigations and submit reports to the Director in respect of the collection, transmission, treatment or disposal of sewage;

(*b*) to install, construct or arrange such facilities for the collection, transmission, treatment or disposal of sewage; and

(*c*) to maintain, keep in repair and operate such facilities,

as may be directed from time to time by the Director.

Idem

(1*a*) If an industrial or commercial enterprise makes no arrangements for the collection, transmission, treatment or disposal of sewage, a Director may require such industrial or commercial enterprise,

(*a*) to make investigations and submit reports to the Director in respect of the collection, transmission, treatment or disposal of sewage;

(*b*) to install, construct or arrange such facilities for the collection, transmission, treatment or disposal of sewage; and

(*c*) to maintain, keep in repair and operate such facilities,

as may be directed from time to time by the Director. 1974, c. 19, s. 29.

Offence

(2) Every industrial or commercial enterprise that contravenes a direction or requirement of a Director under subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than $200 for every day the contravention continues. R.S.O. 1970, c. 332, s. 69 (2); 1974, c. 19, s. 2 (*a*).

Discharge of sewage into sewage works

**70.**—(1) Where the discharge or deposit of sewage into a sewage works, in the opinion of a Director, may interfere with the proper operation of a sewage works, the Director may, by notice served on or sent to the municipality that or the person who discharges or deposits, or causes or permits the discharge or deposit of sewage, require the municipality or person to stop or regulate such discharge or deposit or to take such measures in relation thereto in such manner and within such time as the notice may require. R.S.O. 1970, c. 332, s. 70 (1); 1974, c. 19, s. 2 (*a*).

Offence

(2) Every municipality that or person who contravenes a notice under subsection 1 is guilty of an offence and on summary conviction is liable to a fine of not more than $200 for every day upon which the contravention continues. R.S.O. 1970, c. 332, s. 70 (2).

Protection from personal liability

**71.**—(1) Except in the case of an application for judicial review or an action or proceeding that is specifically provided for with respect to a person referred to in this subsection in any Act or in a regulation under this or any other Act, no action or other proceeding for damages or otherwise shall be instituted against any member of the Environmental Appeal Board or the Environmental Assessment Board or against any employee of the Ministry or any Crown employee within the meaning of *The Public Service Act* R.S.O. 1970, c. 386 acting under the direction of such member or employee of the Ministry for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any such duty or authority. 1974, c. 19, s. 30, *part*; 1975, c. 71, s. 2.

Crown not relieved of liability

(2) Subsection 1 does not, by reason of subsections 2 and 4 of section 5 of *The Proceedings Against the Crown Act*, R.S.O. 1970, c. 365 relieve the Crown of liability in respect of a tort committed by an agent or servant of the Crown to which it would otherwise be subject and the Crown is liable under that Act for any such tort in a like manner as if subsection 1 had not been enacted. 1974, c. 19, s. 30, *part*.

Proceedings to enforce provisions of Act and regulations

**72.** Proceedings to enforce any provision of this Act or of any regulation made under this Act or of any by-law passed under clause *c* or *d* of subsection 1 of section 64 may be instituted within one year after the time when the subject-matter of the proceedings arose. R.S.O. 1970, c. 332, s. 72.

Enforcing performance of things required to be done by Minister

**73.** Where the Minister or an officer to whom power has been delegated by the Minister under section 9 has authority to direct or require that any matter or thing be done, the Minister or such officer may direct that, in default of its being done by the municipality or person directed or required to do it, such matter or thing shall be done at the expense of such municipality or person, and the Minister may recover the expense incurred in doing it, with costs, by action in a court of competent jurisdiction as a debt due to the Crown by such municipality or person. R.S.O. 1970, c. 332, s. 73; 1972, c. 1, s. 70 (2, 3).

Power to restrain by action

**74.** Where any provision of this Act or any regulation made thereunder or any direction, order, approval, notice

or permit, made, granted, given, served or issued by a Director under this Act is contravened, in addition to any other remedy and to any penalty imposed by law, such contravention may be restrained by action at the instance of the Minister. R.S.O. 1970, c. 332, s. 74; 1972, c. 1, s. 70 (2); 1974, c. 19, s. 2 (*d*).

Fees for approval

**75.** Upon the issuance or alteration of a permit or the giving of approval under this Act, there shall be paid to the Treasurer such fees as the Minister may determine, in each case having regard amongst other things to the time occupied by the Ministry in respect of such issuance, alteration or approval, and the terms and conditions in respect thereof. 1974, c. 19, s. 31.

Fees for copies, information or advice

**76.** The Minister may charge and collect for payment to the Treasurer such fees as the Minister considers proper,

(*a*) for copies of documents, maps, plans or drawings; or

(*b*) for information or advice in respect of the collection, production, transmission, treatment, storage, supply or distribution of water or sewage,

supplied by the Ministry. 1974, c. 19, s. 32.

False information

**77.** Every person who knowingly gives false information in any application, return or statement made to the Minister or an employee of the Ministry in respect of any matter under this Act or the regulations made under this Act is guilty of an offence and on summary conviction is liable to a fine of not more than $500. R.S.O. 1970, c. 332, s. 77; 1972, c. 1, s. 70 (2); 1974, c. 19, s. 33.

Recovery of moneys owing to Treasurer

**78.** Any amount due and payable by a municipality or a person to the Treasurer in respect of any matter under this Act, together with such interest and expenses of debt service as may be determined by the Treasurer with respect to such amount, may be recovered by the Minister with costs in a court of competent jurisdiction as a debt due to the Crown by the municipality or person. 1974, c. 19, s. 34.

Submissions

**79.**—(1) Where a Director intends to make, give or issue a direction, order, report or notice, other than an emergency order, he shall serve notice of his intention together with written reasons therefor upon the person or municipality to whom he intends to make, give or issue the direction, order, report or notice and shall not make, give or issue



the direction, order, report or notice until fifteen days after the service thereof and such person or municipality may make submissions to him at any time before the making, giving or issuing of the direction, order, report or notice. 1972, c. 1, s. 70 (50), *part*; 1974, c. 19, s. 2 (*d*).

When approval, etc., refused

(2) When a Director,

(*a*) refuses to issue or renew, or cancels or suspends a licence or permit or refuses to grant an approval;

(*b*) imposes terms and conditions in issuing a licence or permit or in granting an approval;

(*c*) alters the terms and conditions of a permit after it is issued; or

(*d*) gives or makes any notice, direction, report or order, except an order under section 61,

he shall serve written notice of the refusal, cancellation or suspension referred to in clause *a*, the terms and conditions imposed or altered as referred to in clause *b* or *c*, or a written copy of the notice, direction, report or order referred to in clause *d*, together with written reasons therefor, in each case upon the applicant or the person or municipality to whom the licence, permit, approval, direction, order, report or notice is issued, as the case may be, and the applicant, person or municipality may, by written notice served upon the Director and the Environmental Appeal Board within fifteen days after the service of the notice, terms and conditions or written copy together with written reasons therefor in each case require a hearing by the Environmental Appeal Board. 1974, c. 19, s. 35 (1).

Hearing 1971, c. 86

(3) The provisions of section 80 of *The Environmental Protection Act, 1971* apply *mutatis mutandis* to a hearing by the Environmental Appeal Board under this section. 1972, c. 1, s. 70 (50), *part*.

Parties to hearing

(4) The applicant, person or municipality requiring the hearing, the Director referred to in subsection 2 and any other persons specified by the Environmental Appeal Board are parties to the hearing. 1974, c. 19, s. 35 (2).

Interpretation

**80.**—(1) In this section and in section 79, "emergency order" means an order, direction, report or notice issued, made or given under this Act in an emergency by reason of,

(*a*) danger to the health or safety of any person;

(*b*) impairment or immediate risk of impairment of any waters or the use thereof; or

(*c*) injury or damage or immediate risk of injury or damage to any property or to any plant or animal life.

Enforcement of order

(2) No order, direction, report or notice, except an emergency order, shall be enforced until final disposition of an appeal, if any, or until the time for taking an appeal against the order has passed.

Compliance

(3) A person or municipality to whom an emergency order is issued, made or given shall comply with the emergency order forthwith after service of the order or a written copy thereof.

When emergency order altered on appeal

(4) When an emergency order is appealed and is altered or rescinded on final appeal, the alteration or rescission of the order comes into force on the date the final decision on appeal is given. 1972, c. 1, s. 70 (50), *part*.

# ONTARIO REGULATION 54/76

**under The Executive Council Act**

Transfer of Administration of Acts.
Made—April 30th, 1975.
Filed—January 16th, 1976.

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O.C. 1214/75

Copy of an Order-in-Council approved by Her Honour the Lieutenant Governor, dated the 30th day of April, A.D. 1975.

Upon the recommendation of the Honourable the Premier, the Committee of Council advise that pursuant to subsection 1 of section 4 of *The Executive Council Act*, the administration of the sections of *The Ontario Water Resources Act* set out in the following Table and of the regulations made under such sections be transferred to the Minister of Consumer and Commercial Relations effective the 1st day of April, 1974:

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| 3 | 62(1)(*g*) |
| 4 | 62(1)(*h*) |
| 5 | 63 |
| 6 | 64 |
| 7 | 65 |
| 8 | 66 |

O. Reg. 54/76.

# A P P E N D I X  3

The Pesticides Act, 1973

Ontario Regulation 618/74

Government of Ontario

# The Pesticides Act, 1973

Statutes of Ontario, 1973
Chapter 25
as amended by
1974, Chapter 21

and

**Ontario Regulation 618/74**
as amended by
O. Reg. 577/76

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NOTE: Pages 49 - 158 have not been included in this Appendix.



# CHAPTER 25

## The Pesticides Act, 1973

Interpretation

**1.**—(1) In this Act,

1. "air" means open air not enclosed in a building, structure, machine, chimney, stack, flue or vehicle;

2. "Board" means the Pesticides Appeal Board;

3. "Committee" means the Pesticides Advisory Committee;

. . . . .

5. "environment" means the natural environment, a building, structure, machine and vehicle, or any of them;

6. "extermination" means a land extermination, structural extermination or a water extermination;

7. "extermination business" means an activity or enterprise carried on for the purpose of causing an extermination or exterminations to be performed for fee or payment;

8. "exterminator" means a person who, by himself or by his employees, assistants or agents, performs or enters into a contract to perform an extermination;

9. "land" means surface land not enclosed in a building or structure, land covered by water and all subsoil, or any combination or part thereof;

10. "land extermination" means the destruction, prevention or control in, on or over land of a pest or pests by the use of a pesticide but does not include a structural extermination, a water extermination or the destruction, prevention or control of termites;

11. "licence" means a licence issued under this Act and the regulations;

12. "licensee" means a person who is the holder of a licence under this Act;

13. "Minister" means the Minister of the Environment;

14. "Ministry" means the Ministry of the Environment;

15. "natural environment" means the air, land and water, or any combination or part thereof, of the Province of Ontario;

16. "operator" means a person who has the control and management of an extermination business, and "operate" has a corresponding meaning;

17. "permittee" means a person who is the holder of a permit under this Act;

18. "person" includes a municipality, a corporation on behalf of Her Majesty in right of Ontario, and an agent of any of them;

19. "person responsible", when used with reference to a pesticide, substance or thing, means,

(i) the owner,

(ii) the person having the charge, management or control of the handling, storage, use, disposal, transportation or display, or

(iii) the person having the charge, management or control,

of the pesticide, substance or thing;

20. "pest" means any injurious, noxious or troublesome plant or animal life other than man or plant or animal life on or in man and includes any injurious, noxious or troublesome organic function of a plant or animal;

21. "pesticide" means any organism, substance or thing that is manufactured, represented, sold or used as a means of directly or indirectly controlling, preventing, destroying, mitigating, attracting or repelling any pest or of altering the growth, development or characteristics of any plant life that is not a pest and includes any organism, substance or thing registered under the *Pest Control Products Act* (Canada);

R.S.C. 1970, c. P-10



22. "prescribed" means prescribed by the regulations;

23. "provincial officer" means a person who is designated under section 17;

24. "regulations" means the regulations made under this Act;

25. "structural extermination" means the destruction, prevention or control of a pest that may adversely affect a building, structure, machine, vehicle or their contents or the use or enjoyment thereof by any person by the use of a pesticide in, on or in the vicinity of the building, structure, machine or vehicle and includes the destruction, prevention or control of termites;

26. "water" means surface water and ground water, or either of them;

27. "water extermination" means the destruction, prevention or control in, on or over surface water of a pest by the use of a pesticide. 1973, c. 25, s. 1; 1974, c. 21, s. 1 (1).

Idem, Director

(2) In this Act, "the Director" means a Director appointed under section 2*a*. 1974, c. 21, s. 1 (2).

Powers and duties of Minister

**2.** The Minister, for the purpose of the administration of this Act and the regulations, may,

(*a*) investigate problems relating to pesticides and the control of pests;

(*b*) conduct research relating to pesticides and the control of pests;

(*c*) conduct studies of the effect of pesticides and the control of pests on the quality of the environment;

(*d*) convene conferences and conduct seminars and educational programs relating to pesticides and the control of pests;

(*e*) gather, publish and disseminate information relating to pesticides and the control of pests;

(*f*) make grants and loans for research related to pesticides and the control of pests in such amounts and upon such terms and conditions as the regulations may prescribe;

(*g*) appoint committees to perform such advisory functions as the Minister considers requisite;

(*h*) with the approval of the Lieutenant Governor in Council, enter into an agreement with any government or person relating to pesticides or the control of pests. 1973, c. 25, s. 2.

Appointment of Directors

**2***a*.—(1) The Minister shall appoint in writing such employees of the Ministry as he considers necessary as Directors in respect of such sections of this Act and in respect of such of the regulations or sections thereof as are set out in the appointments.

Limitation of authority of Director

(2) The Minister, in an appointment pursuant to subsection 1, may limit the authority of a Director in such manner as the Minister considers necessary or advisable. 1974, c. 21, s. 2.

Prohibition

**3.** No person, whether acting or not acting under the authority of a licence or permit under this Act or an exemption under the regulations, shall deposit, add, emit or discharge or cause or permit the deposit, addition, emission or discharge of a pesticide or of any substance or thing containing a pesticide into the environment that,

(*a*) causes or is likely to cause impairment of the quality of the environment for any use that can be made of it greater than the impairment, if any, for such use that would necessarily result from the proper use of the pesticide;

(*b*) causes or is likely to cause injury or damage to property or to plant or animal life greater than the injury or damage, if any, that would necessarily result from the proper use of the pesticide;

(*c*) causes or is likely to cause harm or material discomfort to any person greater than the harm or material discomfort, if any, that would necessarily result from the proper use of the pesticide;

(*d*) adversely affects or is likely to affect adversely the health of any person to a greater degree than the adverse effect, if any, that would necessarily result from the proper use of the pesticide;

(*e*) impairs or is likely to impair the safety of any person to a greater degree than the impairment, if any, of the safety of any person that would necessarily



(*f*) renders or is likely to render, directly or indirectly, any property or plant or animal life unfit for use by man to a degree greater than the unfitness, if any, that would necessarily result from the proper use of the pesticide. 1973, c. 25, s. 3.

Prohibition as to extermination

**4.**—(1) No person shall engage in, perform or offer to perform an extermination except under and in accordance with a licence of a prescribed class and except by the use of a pesticide of a class and under the conditions for use prescribed for that class of licence or unless exempt under the regulations.

Licence required to operate extermination business

(2) No person shall operate an extermination business except under and in accordance with a licence of a prescribed class or unless exempt under the regulations.

Idem, assistant structural exterminator

(3) No person shall serve for a period of more than six months as an assistant to the holder of a licence to perform structural exterminations unless the person is licensed as an assistant exterminator or is exempt under the regulations.

Notice as to assistants to land exterminators or water exterminators

(4) No person shall serve for a period of more than seven days as an assistant to the holder of a licence to perform land exterminations or water exterminations unless the holder of the licence to perform the exterminations notifies the Director in writing or the person is exempt under the regulations. 1973, c. 25, s. 4.

Licence to sell, offer to sell or transfer

**5.** Unless exempt by the regulations, no person shall sell, offer to sell or transfer any pesticide unless the pesticide is classified by the regulations and except under and in accordance with a licence that shall be for such class and in respect of each premises on, in or from which the pesticide is or will be sold, offered for sale or transferred. 1973, c. 25, s. 5.

Where permit required

**6.**—(1) No person shall perform a land extermination or a structural extermination,

(*a*) by means of a pesticide;

(*b*) by means of a pesticide of a class; or

(*c*) under the conditions of use,

prescribed for the purpose of this section unless he is the holder of a permit for the land extermination or the structural extermination issued by the Director or he is exempt under

Idem

(2) No person shall perform a water extermination unless he is the holder of a permit issued by the Director for the water extermination or he is exempt under the regulations. 1973, c. 25, s. 6.

Responsibility for acts or omissions

**7.** For the purpose of this Act and the regulations, every person is, with respect to any matter under this Act and the regulations, responsible for the acts or omissions of his employees and agents within the scope of their actual or apparent authority. 1973, c. 25, s. 7.

Liability insurance

**8.** An operator shall insure against liability or furnish a bond as provided for by the regulations. 1973, c. 25, s. 8.

Advisory Committee

**9.**—(1) The Committee known as the Pesticides Advisory Committee established under *The Pesticides Act*, being chapter 346 of the Revised Statutes of Ontario, 1970, and consisting of not fewer than ten members appointed by the Lieutenant Governor in Council one of whom may be designated by the Lieutenant Governor in Council as chairman and for whom the Lieutenant Governor in Council may appoint a person who is not a member as secretary, is continued.

Quorum

(2) Six members of the Committee constitute a quorum.

Functions

(3) The Committee shall,

(*a*) review annually the content and operation of this Act and the regulations and recommend changes or amendments therein to the Minister;

(*b*) inquire into and consider any matter the Committee considers advisable concerning pesticides and the control of pests, and any matter concerning pesticides and the control of pests referred to it by the Minister, and report thereon to the Minister;

(*c*) review publications of the Government of Ontario respecting pesticides and the control of pests, and report thereon to the Minister; and

(*d*) perform such other functions as the regulations prescribe. 1973, c. 25, s. 9.

Issuance of licence or permit

**10.**—(1) Subject to subsection 2, the Director shall issue or renew a licence under section 4 or 5, and subject to subsection 3, the Director shall issue a permit under section 6 to any person who applies for the licence or permit, as the case may be, in accordance with the regulations and who meets



the requirements of this Act and the regulations for the particular class of licence or for the permit applied for and who pays the fee prescribed for the licence or permit.

Revocation and refusal of licence

(2) Subject to section 13, the Director may refuse to issue or renew a licence or may suspend or revoke a licence where, in the opinion of the Director,

(*a*) the applicant or licensee is in contravention of this Act or the regulations;

(*b*) the licensee is in breach of any term or condition of the licence;

(*c*) the applicant or licensee or, where the applicant or licensee is a corporation, its officers or directors, is or are not competent to carry on the activity that would be or is authorized by the licence;

(*d*) the past conduct of the applicant or licensee or, where the applicant or licensee is a corporation, of any of its officers or directors, affords reasonable grounds for belief that the activity that would be or is authorized by the licence will not be carried on with honesty and integrity;

(*e*) the applicant or licensee does not possess or will not have available all premises, facilities and equipment necessary to carry on the activity authorized by the licence in accordance with this Act, the regulations and the licence;

(*f*) the applicant or licensee is not in a position to observe or carry out the provisions of this Act, the regulations and the licence;

(*g*) the licensee has been grossly negligent in carrying on the activity that is authorized by the licence; or

(*h*) the licensee has fraudulently misrepresented his services in performing an extermination or in carrying on an extermination business.

Revocation and refusal of permit

(3) The Director may refuse to issue or may cancel a permit, may impose terms and conditions in issuing or after issuing a permit and may alter the terms and conditions of a permit that has been issued where the Director is of the opinion, upon reasonable and probable grounds, that,

(*a*) the applicant or permittee is not competent to perform the extermination for which the permit is required;

(*b*) the applicant or permittee does not possess or will not have available all facilities and equipment necessary to perform the extermination in accordance with this Act, the regulations and the permit;

(*c*) there is or is likely to be danger to the health or safety of any person;

(*d*) there is or is likely to be harm or material discomfort to any person;

(*e*) there is or is likely to be impairment of the quality of the environment for any use that is being or is likely to be made of it;

(*f*) there is or is likely to be injury or damage to any property or to plant or animal life;

(*g*) any property or plant or animal life is or is likely to be rendered, directly or indirectly, unfit for use by man;

(*h*) a different method of control or extermination will or will likely be substantially as effective as the proposed extermination for which a permit is required under section 6 and will or will likely cause less impairment of the environment, if any, for any use that is being or is likely to be made of it or less harm to or adverse effect, if any, on any plant or animal life, man or property; or

(*i*) the use of the pesticide will not be or will not likely be effective or necessary to carry out the extermination. 1973, c. 25, s. 10.

Term of licence

**11.** A licence expires on the 15th day of February in the year next following the year in which it was issued. 1973, c. 25, s. 11.

Pesticides Appeal Board

**12.**—(1) The Lieutenant Governor in Council shall appoint a board, consisting of not more than seven members, to be known as the Pesticides Appeal Board who shall hold office during pleasure and none of whom shall be members of the public service in the employ of the Crown.



Chairman

(2) The Lieutenant Governor in Council may appoint one of the members of the Board as chairman.

Quorum

(3) Four members of the Board constitute a quorum.

Appointment of staff R.S.O. 1970, c. 386

(4) Such employees as are required for the purposes of the Board may be appointed under *The Public Service Act*. 1973, c. 25, s. 12.

Proposal to refuse to issue licence, etc.

**13.**—(1) Where the Director proposes,

(*a*) to refuse to issue or renew a licence;

(*b*) to suspend or revoke a licence; or

(*c*) to make, amend or vary a control order,

he shall serve notice of his proposal, together with written reasons therefor, on the applicant, licensee or person to whom the Director intends to direct the control order.

Notice

(2) A notice under subsection 1 shall inform the applicant, licensee or person to whom the Director intends to direct the control order that he is entitled to a hearing by the Board if he mails or delivers to the Director and the Board, within fifteen days after the notice under subsection 1 is served on him, notice in writing requiring a hearing, and he may so require such a hearing.

Powers of Director where no hearing

(3) Where an applicant, licensee or person to whom the Director intends to direct the control order does not require a hearing by the Board in accordance with subsection 2, the Director may carry out the proposal stated in his notice under subsection 1.

Powers of Board where hearing

(4) Where an applicant, licensee or person to whom the Director intends to direct the control order requires a hearing by the Board in accordance with subsection 2, the Board shall appoint a time and place for and hold the hearing and may by order direct the Director to carry out his proposal or refrain from carrying out his proposal and to take such action as the Board considers the Director ought to take in accordance with this Act and the regulations, and for such purposes the Board may substitute its opinion for that of the Director.

Extension of time for requiring hearing

(5) The Board may extend the time for the giving of notice requiring a hearing by an applicant, licensee or person to whom the Director intends to direct a control order referred to

time, where it is satisfied that there are reasonable grounds for applying for the extension and that there are *prima facie* grounds for granting relief to the applicant, licensee or person to whom the Director intends to direct the control order referred to in subsection 1, and the Board may give such directions as it considers proper consequent upon the extension.

Continuation of licence pending renewal

(6) Where, within the time prescribed therefor or, if no time is prescribed, before expiry of his licence, a licensee has applied for a renewal of his licence and paid the prescribed fee, his licence shall be deemed to continue,

(*a*) until the renewal is granted; or

(*b*) where he is served with notice that the Director proposes to refuse to grant the renewal, until the time for giving notice requiring a hearing by the Board has expired and, where a hearing is required, until the Board has made its decision.

Emergency notice

(7) Notwithstanding subsection 6, where the Director is of the opinion that an emergency exists by reason of,

(*a*) danger to the safety or health of any person;

(*b*) impairment or immediate risk of impairment of the environment for any use that is being or is likely to be made of it;

(*c*) injury or damage or immediate risk of injury or damage to property, or to plant or animal life;

(*d*) the rendering or immediate risk of rendering, directly or indirectly, of any property or plant or animal life unfit for use by man; or

(*e*) a failure by a licensee to have in force insurance against liability or to furnish or have in force a bond as required by section 8,

the Director, by a notice to a licensee or to a person to whom the Director intends to direct a control order, together with written reasons therefor, may refuse to renew, suspend or revoke a licence or make, amend or vary a control order and, notwithstanding that the licensee or person to whom the control order is directed requires a hearing by the Board, the licence shall not be deemed to continue or the suspension, revocation or the making, amendment or variation of the control order is effective upon the service of the notice, as the case requires.



Where permit cancelled or terms or conditions imposed or altered

(8) Where the Director refuses to issue or cancels a permit or imposes or alters a term or condition in a permit that has been issued, he shall forthwith thereafter serve or cause to be served notice of his decision, upon the applicant or permittee, together with written reasons therefor.

Reconsideration

(9) Where the Director issues a permit subject to a term or condition, refuses to issue or cancels a permit or imposes or alters a term or condition in a permit that has been issued and the applicant or permittee makes submissions to the Director, the Director, within three days after receiving the submissions, shall reconsider and vary, rescind or confirm his decision and shall serve or cause to be served notice of such variance, rescission or confirmation upon the applicant or permittee together with written reasons therefor and where the Director varies or rescinds his decision, he shall take such action as may be necessary to make the variation or rescission effective.

Notice

(10) A permit issued by the Director subject to a term or condition and a notice under subsection 8 shall inform the applicant or permittee that he is entitled to make submissions to the Director, in person or by an agent and by telephone or otherwise and that he is entitled to a hearing by the Board if he mails or delivers to the Director and the Board, within fifteen days after the notice under subsection 9 is served on him, notice in writing requiring a hearing and he may so make such submissions and so require such a hearing.

Effect of service of notice

(11) Notwithstanding the making of submissions by an applicant or a permittee pursuant to subsection 10, the issuance of a permit subject to a term or condition or the cancellation of a permit or the imposition or alteration of a term or condition in a permit that has been issued by the Director is effective upon the issuance of the permit or upon the service of the notice under subsection 8.

Application of subss. 4, 5.

(12) Subsections 4 and 5 apply *mutatis mutandis* to a hearing by the Board required under subsection 10. 1973, c. 25, s. 13.

Parties

**14.**—(1) The Director, the applicant, licensee, permittee or person to whom the Director intends to direct a control order who has required a hearing and such other persons as the Board may specify are parties to proceedings before the Board under section 13.

Notice of hearing

(2) Notice of a hearing under section 13 shall afford to the applicant, licensee, permittee or person to whom the Director intends to direct a control order a reasonable

opportunity to show or to achieve compliance before the hearing with all lawful requirements for the issue or retention of the licence or permit or to take such action as will preclude the necessity for making, amending or varying the control order.

Examination of documentary evidence

(3) An applicant, licensee, permittee or person to whom the Director intends to direct a control order who is a party to proceedings under section 13 shall be afforded an opportunity to examine before the hearing any written or documentary evidence that will be produced or any report the contents of which will be given in evidence at the hearing.

Members holding hearing not to have taken part in investigation, etc.

(4) Members of the Board holding a hearing shall not have taken part before the hearing in any investigation or consideration of the subject-matter of the hearing and shall not communicate directly or indirectly in relation to the subject-matter of the hearing with any person or with any party or his representative except upon notice to and opportunity for all parties to participate, but the Board may seek legal advice from an adviser independent from the parties and in such case the nature of the advice shall be made known to the parties in order that they may make submissions as to the law.

Recording of evidence

(5) The oral evidence taken before the Board at a hearing shall be recorded and, if so required, copies or a transcript thereof shall be furnished upon the same terms as in the Supreme Court.

Findings of fact

1971, c. 47

(6) The findings of fact of the Board pursuant to a hearing shall be based exclusively on evidence admissible or matters that may be noticed under sections 15 and 16 of *The Statutory Powers Procedure Act, 1971*.

Only members at hearing to participate in decision

(7) No member of the Board shall participate in a decision of the Board pursuant to a hearing unless he was present throughout the hearing and heard the evidence and argument of the parties and, except with the consent of the parties, no decision of the Board shall be given unless all members so present participate in the decision.

Release of documentary evidence

(8) Documents and things put in evidence at the hearing shall, upon the request of the person who produced them, be released to him by the Board within a reasonable time after the matter in issue has been finally determined. 1973, c. 25, s. 14.

Appeal to court

**15.**—(1) Any party to proceedings before the Board may appeal from its decision or order on a question of law to the



Record to be filed in court

(2) Where any party appeals from a decision or order of the Board, the Board shall forthwith file in the Supreme Court the record of the proceedings before it in which the decision was made, which, together with the transcript of the evidence if it is not part of the Board's record, shall constitute the record in the appeal.

Minister entitled to be heard

(3) The Minister is entitled to be heard by counsel or otherwise upon the argument of an appeal under subsection 1.

Appeal to Minister

(4) Any party to a hearing before the Board, within thirty days after receipt of the decision of the Board or within thirty days after final disposition of an appeal, if any, under subsection 1, may appeal in writing to the Minister on any matter other than a question of law and the Minister shall confirm, alter or revoke the decision of the Board as to the matter in appeal as he considers in the public interest. 1973, c. 25, s. 15.

Protection from personal liability

**16.**—(1) Except in the case of an application for judicial review or an action or proceeding that is specifically provided for with respect to a person referred to in this subsection in any Act or in a regulation under this or any other Act, no action or other proceeding for damages or otherwise shall be instituted against an employee of the Ministry, a member of the Board or the Committee or a Crown employee within the meaning of *The Public Service Act* who is a provincial officer or is acting under the direction of an employee of the Ministry, or such member or provincial officer for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any such duty or authority. 1974, c. 21, s. 3.

Crown not relieved of liability

R.S.O. 1970, c. 365

(2) Subsection 1 does not, by reason of subsections 2 and 4 of section 5 of *The Proceedings Against the Crown Act*, relieve the Crown of liability in respect of a tort committed by an agent or servant of the Crown to which it would otherwise be subject and the Crown is liable under that Act for any such tort in a like manner as if subsection 1 had not been enacted. 1973, c. 25, s. 16 (2).

Provincial officers

**17.**—(1) The Minister may designate in writing one or more officers or employees of the Ministry or other persons as provincial officers for the purposes of this Act and the regulations. 1973, c. 25, s. 17 (1).

Powers of provincial officer

(2) For the purpose of the administration of this Act and the regulations, a provincial officer may, from time to time

and upon production of his designation, enter at any reason-

(b) harm or potential harm to or an adverse effect on

and upon production of his designation, enter at any reasonable time any building, structure, machine, vehicle, land, water or air and make or require to be made such surveys, examinations, investigations, tests and inquiries, including examinations of books, records and documents, as he considers necessary, and may make, take and remove or may require to be made, taken or removed samples, copies or extracts. 1973, c. 25, s. 17 (2); 1974, c. 21, s. 4.

Order authorizing entry

(3) Where a provincial judge is satisfied, upon an *ex parte* application by a provincial officer, that there is reasonable ground for believing that it is necessary to enter any building, structure, machine, vehicle, land, water or air for the administration of this Act or the regulations, the provincial judge may issue an order authorizing a provincial officer to enter therein or thereon and to make or require to be made such surveys, examinations, investigations, tests and inquiries and to take the other actions that are mentioned in subsection 2, but every such entry, survey, examination, investigation, test, inquiry and other such action shall be made or taken between sunrise and sunset unless the provincial judge authorizes the provincial officer, by the order, to so act at another time.

Information

(4) Every person responsible for a pesticide or for a substance or thing containing a pesticide that is the subject of an investigation by a provincial officer, and every person who assists such a person, shall furnish such information as the provincial officer requires for the purpose of the investigation.

Obstruction of provincial officer

(5) No person who is responsible for a pesticide or for a substance or thing containing a pesticide or who assists such a person shall hinder or obstruct a provincial officer in the lawful performance of his duties or furnish a provincial officer with false information. 1973, c. 25, s. 17 (3-5).

Calling for assistance of member of police force

**18.** Whenever a provincial officer is required or empowered by this Act or the regulations to do or direct the doing of anything, such provincial officer may take such steps and employ such assistance as is necessary to accomplish what is required, and may, when obstructed in so doing, call for the assistance of any member of the Ontario Provincial Police Force or the police force in the area where the assistance is required and it is the duty of every member of a police force to render such assistance. 1973, c. 25, s. 18.

Matters confidential

**19.** Except as to information in respect of,

(*a*) impairment or potential impairment of the quality of the environment for any use that can be made of it; or



(*b*) harm or potential harm to or an adverse effect on any person, living thing or any property,

arising from or likely to arise from the handling, storage, use, disposal, transportation or display of a pesticide or a substance or thing containing a pesticide, every provincial officer shall preserve secrecy in respect of all matters that come to his knowledge in the course of an examination, test or inquiry of or into any matter under this Act or the regulations and shall not communicate any such matter to any person except,

(*c*) as may be required in connection with the administration of this Act and the regulations or any proceedings under this Act or the regulations;

(*d*) to his counsel; or

(*e*) with the consent of the person who is responsible for the handling, storage, use, disposal, transportation or display of the pesticide, substance or thing. 1973, c. 25, s. 19.

Stop order

**20.**—(1) Where the Director or a provincial officer is of the opinion, upon reasonable and probable grounds, that an emergency exists by reason of,

(*a*) danger to the health or safety of any person;

(*b*) impairment or immediate risk of impairment of the quality of the environment for any use that is being or is likely to be made of it;

(*c*) injury or damage or immediate risk of injury or damage to any property or to any plant or animal life; or

(*d*) the rendering or the immediate risk of rendering, directly or indirectly, any property or plant or animal life unfit for use by man,

consequent upon the handling, storage, use, disposal, transportation or display of a pesticide or a substance or thing containing a pesticide, the Director or provincial officer, as the case may be, may make an oral or written stop order directed to the person responsible for the pesticide or the substance or thing containing the pesticide ordering such person to stop immediately the handling, storage, use, disposal, transportation or display of the pesticide or the substance or thing containing the pesticide either permanently or for a specific period of time.

Immediate appeal

(2) A person who is affected by a stop order made by a provincial officer under subsection 1 may appeal therefrom in person or by an agent and by telephone or otherwise to the Director and the Director, after receiving the submissions of the person and of the provincial officer, shall vary, rescind or confirm the stop order of the provincial officer.

Written reasons for order

(3) Where the Director makes a stop order or varies or confirms a stop order pursuant to subsection 2, the Director shall forthwith thereafter serve or cause to be served a written copy of the stop order or a written copy of the stop order as varied or confirmed, as the case requires, together with written reasons therefor, upon the person to whom the stop order or the stop order as varied or confirmed is directed.

Notice

(4) A stop order, or a stop order as varied or confirmed, under subsection 3 shall inform the person to whom it is directed that he is entitled to a hearing by the Board if he mails or delivers to the Director and the Board, within fifteen days after a copy of the stop order, or the stop order as varied or confirmed, under subsection 3, is served on him, notice in writing requiring a hearing and he may so require such a hearing.

Effect of stop order

(5) Notwithstanding that an appeal is taken against a stop order, the stop order is effective at and from the time it is communicated to the person to whom it is directed until confirmed, varied or rescinded on appeal and such person shall comply with the stop order immediately.

Appeal to Board

(6) Where the Director has made a stop order or has varied or confirmed upon appeal to the Director a stop order made by a provincial officer, any person to whom the order is directed may, by written notice mailed to or served upon the Director and the Board within fifteen days after service upon him of a copy of the stop order or of the stop order as varied or confirmed, as the case requires, require a hearing by the Board.

Powers of Board where hearing

(7) Where a person to whom a stop order is directed requires a hearing by the Board in accordance with subsection 6, the Board shall appoint a time and place for and hold the hearing and the Board may by order confirm, alter or rescind the order of the Director and for such purposes the Board may substitute its opinion for that of the Director.

Parties

(8) The Director, the person who has required the hearing and such other persons as the Board may specify are parties



Application of ss. 13 (5), 14 (2-8) and 15

(9) Subsection 5 of section 13, subsections 2, 3, 4, 5, 6, 7 and 8 of section 14 and section 15 apply *mutatis mutandis* to proceedings under this section.

Revocation of stop order

(10) The Director, by an order, may rescind a stop order and in such case shall serve or cause to be served a copy of the rescinding order upon the person to whom the stop order was directed. 1973, c. 25, s. 20.

Control order

**21.**—(1) Where the handling, storage, use, disposal, transportation or display of a pesticide or a substance or thing containing a pesticide,

(*a*) causes or is likely to cause impairment of the quality of the environment for any use that is being or is likely to be made of it;

(*b*) causes or is likely to cause injury or damage to property or to plant or animal life;

(*c*) causes or is likely to cause harm or material discomfort to any person;

(*d*) adversely affects or is likely to affect adversely the health of any person;

(*e*) impairs or is likely to impair the safety of any person;

(*f*) renders or is likely to render, directly or indirectly, any property or plant or animal life unfit for use by man,

the Director, subject to section 13, may make a control order directed to the person responsible for the pesticide or the substance or thing containing the pesticide.

Content of control order

(2) The Director, in a control order, may order the person to whom the order is directed to,

(*a*) limit or control the rate of deposit, addition, emission or discharge of a pesticide or a substance or thing containing a pesticide into the environment in accordance with the directions set out in the order;

(*b*) stop the deposit, addition, emission or discharge of a pesticide or a substance or thing containing a pesticide into the environment,

pesticide that causes or is likely to cause injury or damage to or

(ii) for a specified period of time, or

(iii) in the circumstances set out in the order; and

(c) comply with any directions set out in the order relating to the manner in which a pesticide or a substance or thing containing a pesticide or the container of either of them may be handled, stored, used, disposed of, transported or displayed.

Amendment of control order

(3) The Director, under any of the circumstances set out in subsection 1 and in accordance with subsection 2, by a further order, may amend or vary a control order and sections 13, 14 and 15 apply *mutatis mutandis*.

Revocation of control order

(4) The Director, by an order, may rescind a control order and in such case shall serve or cause to be served a copy of the rescinding order upon the person to whom the control order was directed. 1973, c. 25, s. 21.

When Director to be notified

**22.** Every person who deposits, adds, emits or discharges a pesticide or a substance or thing containing a pesticide in or into the environment out of the normal course of events that,

(a) causes or is likely to cause impairment of the quality of the environment for any use that can be made of it;

(b) causes or is likely to cause injury or damage to property or to plant or animal life;

(c) causes or is likely to cause harm or material discomfort to any person;

(d) adversely affects or is likely to adversely affect the health of any person;

(e) impairs or is likely to impair the safety of any person; or

(f) renders or is likely to render, directly or indirectly, any property or plant or animal life unfit for use by man,

shall forthwith notify the Director. 1973, c. 25, s. 22.

Minister may order repair of damage

**23.**—(1) Where any person deposits, adds, emits or discharges or causes or permits the deposit, addition, emission or discharge of a pesticide or a substance or thing containing a pesticide that causes or is likely to cause injury or damage to or impairment of,



(a) the quality of the environment for any use that is being or is likely to be made of it;

(b) any property or water;

(c) plant or animal life; or

(d) a person,

the Minister, where he is of the opinion that it is in the public interest to do so, may order the person responsible for the pesticide or the substance or thing containing the pesticide to do all things and take all steps within such time or times as may be specified in the order for the purpose of preventing or repairing, as the case requires, such injury or damage or impairment or to restore such quality.

Cleaning and decontamination

(2) Every person responsible for a pesticide or a substance or thing containing a pesticide shall take such measures and do such things within such time or times with respect to the cleaning and decontamination of the environment, or any plant or animal life, substance or thing that has come into contact with a pesticide by any means other than in accordance with this Act and the regulations or a licence, permit or order thereunder as may be prescribed.

Idem

(3) No person shall use the environment or any plant or animal life, substance or thing that has come into contact with a pesticide by any means other than in accordance with this Act and the regulations or a licence, permit or order thereunder unless the cleaning and decontamination thereof has been completed in the prescribed manner or has been approved by the Director in writing. 1973, c. 25, s. 23.

Order binds successor or assignee

**24.**—(1) An order of the Minister, the Director or a provincial officer under this Act is binding upon the successor or assignee of the person to whom it is directed.

Index record

(2) The Ministry shall maintain an alphabetical index record of the names of all persons to whom orders are directed under this Act.

Removal of name from index record

(3) When an order has expired or is rescinded, the Ministry shall remove from the index record the name of the person to whom the order is directed.

Search of index record

(4) The Ministry shall, upon the request of any person, make a search of the index record and inform the person

making the request as to whether or not the name of a particular person appears in the index record and shall permit inspection of any order relating to that person. 1973, c. 25, s. 24.

The Crown

**25.** This Act binds the Crown. 1973, c. 25, s. 25.

Licences or permits not transferable

**26.** A licence or a permit under this Act is not transferable. 1973, c. 25, s. 26.

Exemption

**27.** Where, in the opinion of the Director, it is in the public interest to do so, the Director may exempt an applicant for a licence issued by the Director pursuant to section 5 or the holder of such a licence from any provision of the regulations and issue a licence to the applicant or modify the licence of the licensee, as the case may be, upon such terms and conditions, or alter or revoke the terms and conditions, as the Director considers necessary. 1973, c. 25, s. 27.

Regulations

**28.** The Lieutenant Governor in Council may make regulations,

1. prescribing classes of licences and the requirements for licences and renewals;

2. exempting any person or class of persons from this Act or the regulations or any provision thereof and prescribing terms and conditions attaching to any such exemption;

3. providing for the issue and renewal of licences and prescribing fees therefor;

4. providing for the issue of permits, prescribing fees therefor and the requirements therefor;

5. prescribing terms and conditions with respect to sales, offers to sell, transfers or premises in, on or from which sales, offers to sell or transfers of a pesticide are or will be made that shall attach to any class of licence;

6. providing for the examination of applicants for permits and licences and renewals of licences, and prescribing fees for such examinations;

7. providing for the appointment of examiners for applicants for licences and permits, the period for which such appointments may be made and the



8. requiring applicants for licences to undergo medical examinations;

9. prescribing the procedures, conditions and notices for exterminations and for the airing out of buildings, structures and vehicles;

10. fixing the amount and type of insurance or bond that shall be carried or furnished by operators and prescribing the form, requirements and terms thereof;

11. prescribing pesticides, classes of pesticides and conditions of use for the purpose of section 6;

12. prescribing that a type or class of structural extermination may be deemed a land extermination and prescribing that a type or class of land extermination may be deemed a structural extermination for the purpose of this Act and the regulations;

13. permitting any class of operator or exterminator to perform or to undertake to perform any extermination for which the members of the class are not licensed and prescribing the conditions that shall attach to the permission;

14. exempting any machine, apparatus, equipment, or class thereof, from this Act or the regulations, or any provision thereof;

15. exempting any type or class of building, vehicle or structure from this Act or the regulations or any provision thereof;

16. excluding any land or water from the operation of this Act or the regulations or any provision thereof;

17. regulating or prohibiting the installation, operation, maintenance and use of any machine, apparatus or equipment used for extermination;

18. governing the signs, marking or other identification of vehicles or machines used in exterminations;

19. regulating the construction of any enclosed space or vault in which movable property may be placed during the periods of extermination and airing out;

20. prescribing functions, practices and procedures, ten-

33. prescribing the records to be kept by persons respon

21. providing for the remuneration and expenses of members of the Pesticides Appeal Board;

22. prescribing forms and providing for their use for the purposes of this Act;

23. governing, regulating or prohibiting the use, handling, storage, display or disposal of pesticides;

24. classifying pesticides and prohibiting or regulating the sale, offering for sale or transfer of any pesticide or class of pesticides;

25. prohibiting the holders of any class of licence from using any designated pesticide or class of pesticides;

26. regulating the type of containers and the labelling of containers for pesticides, other than the containers in which pesticides are sold or offered for sale;

27. regulating the disposal of containers of pesticides;

28. prescribing the records to be kept and returns to be made by licensees;

29. exempting any plant or animal life, organism, substance or thing or any class of any of them or any quantity or concentration of any organism or substance from this Act or the regulations or any provision thereof;

30. respecting premises on, in or from which any pesticide or class of pesticide is sold, offered for sale or transferred;

31. regulating and controlling, for the purpose of preventing or reducing the contamination by pesticides of the environment, property, plant or animal life, or of any person, the transportation of any designated pesticide or class of pesticides by any vehicle operated on any highway or road or the transportation of any designated pesticide or class of pesticides together with any commodity or class of commodities by a vehicle operated on any highway or road;

32. prohibiting the transportation of any designated pesticide or class of pesticides together with any commodity or class of commodity by a vehicle operated on any highway or road;



33. prescribing the records to be kept by persons responsible for the transportation of any designated pesticide or class of pesticides by a vehicle operated on a highway or road;

34. requiring, regulating or prohibiting the removal or disposal of any substance or thing that has come into contact with any pesticide by any means other than in accordance with this Act and the regulations or a licence, permit or order thereunder;

35. requiring and prescribing measures to be taken and things to be done with respect to the cleaning and decontamination of the environment or any plant or animal life, substance or thing that has come into contact with a pesticide by any means other than in accordance with this Act and the regulations or a licence, permit or order thereunder and the time or times within which such measures shall be taken and things done. 1973, c. 25, s. 28.

Scope of regulations

**29.**—(1) Any regulation may be general or particular in its application and may be limited as to time or place or both.

Adoption of codes in regulations

(2) Any regulation may adopt by reference, in whole or in part, with such changes as the Lieutenant Governor in Council considers necessary, any code, formula, standard or procedure, and may require compliance with any code, formula, standard or procedure so adopted. 1973, c. 25, s. 29.

Fees for copies

**30.** The Minister may charge and collect for payment to the Treasurer of Ontario such fees as the Minister considers proper for all copies of pamphlets, brochures, documents, maps, plans or drawings supplied by the Ministry. 1973, c. 25, s. 30; 1974, c. 21, s. 5.

Service

**31.**—(1) Any notice, order, decision or other document required to be given, served or delivered under this Act or the regulations is sufficiently given, served or delivered if delivered personally or sent by registered mail addressed to the person to whom it is required to be given, served or delivered at the latest address for service appearing on the records of the Ministry or, where there is no address for service so appearing, at the address, if any, last known to the Director.

When service deemed made

(2) Where service is made by registered mail pursuant to subsection 1, the service shall be deemed to be made on the fifth day after the day of mailing unless the person on whom service is being made establishes that he did not, acting in

good faith, through absence, accident, illness or other cause beyond his control, receive the notice, order, decision or other document until a later date. 1973, c. 25, s. 31.

Enforcement of performance of things required to be done

**32.** Where the Minister or the Director has authority to order or require that any matter or thing be done, the Minister may order that, in default of its being done by the person ordered or required to do it, such matter or thing shall be done at the expense of such person, and the Minister may recover the cost of doing it, with costs, by action in a court of competent jurisdiction as a debt due to the Crown by such person. 1973, c. 25, s. 32.

False information

**33.** No person shall knowingly give false information in any application, return or statement made to the Minister, a provincial officer or any employee of the Ministry in respect of any matter under this Act or the regulations. 1974, c. 21, s. 6.

Offence

**34.** Every person, whether as principal or employer or as agent or employee of either of them, who contravenes any provision of this Act or the regulations or fails to comply with an order or a term or condition of a licence or permit made or issued under this Act is guilty of an offence and on summary conviction is liable on a first conviction to a fine of not more than $5,000 for every day or part thereof upon which the offence occurs or continues and upon a second or subsequent conviction to a fine of not more than $10,000 for every day or part thereof upon which the offence occurs or continues. 1973, c. 25, s. 34.

Multiple information

**35.** An information in respect of any matter under this Act may be for one or more offences and no information, summons, warrant, conviction or other proceeding in any prosecution is objectionable or insufficient by reason of the fact that it relates to two or more offences. 1973, c. 25, s. 35.

Certificates, etc., as evidence

**36.** In any prosecution, proceeding or hearing under this Act or the regulations, the production of,

(*a*) a certificate or report of an analyst in the employ of the Crown in right of Ontario designated by the Minister as to the analysis, ingredients, quality, quantity or temperature of any material, whether solid, liquid or gas or any combination of them; or

(*b*) a notice, licence, permit, order, certificate, consent or approval purporting to be signed by the Minister



is *prima facie* evidence of the facts stated therein and of the authority of the person making the report, notice, licence, permit, order, certificate, consent or approval without any proof of appointment or signature. 1973, c. 25, s. 36.

Proceedings to prohibit continuation or repetition of contravention

**37.**—(1) Where any provision of this Act or the regulations or any direction, order, licence or permit made, served, delivered or issued by the Minister or the Director under this Act is contravened, notwithstanding any other remedy or any penalty imposed, the Minister may apply to a judge of the Supreme Court by originating motion for an order prohibiting the continuation or repetition of the contravention or the carrying on of any activity specified in the order that, in the opinion of the court, will or will likely result in the continuation or repetition of the contravention by the person committing the contravention, and the judge may make the order and it may be enforced in the same manner as any other order or judgment of the Supreme Court.

Rescission or variation of order

(2) Any person against whom an order has been made under subsection 1 may apply to a judge of the Supreme Court for an order varying or rescinding such order. 1973, c. 25, s. 37.

Conflict

**38.** Where a conflict appears between any provision of this Act or the regulations and any other Act or regulation in a matter related to pesticides and the control of pests, the provision of this Act or the regulations shall prevail. 1973, c. 25, s. 38.

Applications, etc., deemed under this Act

**39.** Every application, examination, licence, permit, order, regulation, prosecution, proceeding or hearing that is made, taken or deemed to be in effect under Part VI of *The Environmental Protection Act, 1971* and under *The Pesticides Act* shall continue to subsist and shall be deemed to be in effect under this Act in accordance with the terms thereof or until amended or revoked under this Act or the regulations. 1973, c. 25, s. 39.

1971, c. 86

R.S.O. 1970, c. 346

Repeals

**40.** The following are repealed:

1. *The Pesticides Act*, being chapter 346 of the Revised Statutes of Ontario, 1970.

2. Section 66 of *The Civil Rights Statute Law Amendment Act, 1971*, being chapter 50.

3. Section 71 of *The Government Reorganization Act, 1972*, being chapter 1.

Commencement

*41. This Act comes into force on a day to be named by the Lieutenant Governor by his proclamation.

Short title

42. This Act may be cited as *The Pesticides Act, 1973*.

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*NOTE: **The Act was proclaimed in force as of May 31st, 1974 and the amendments to the Act by 1974, c. 21 were proclaimed in force as of July 4th, 1974.**

# ONTARIO REGULATION 618/74

**under The Pesticides Act, 1973**

## GENERAL

### INTERPRETATION

1. In this Regulation,

(*a*) "adequate respiratory protection" means a respiratory device or devices which effectively protects the user from adverse effects which might result from breathing in of a pesticide during the handling or use of the pesticide;

(*aa*) "adequate protective clothing" means clothing including rubber or neoprene boots, rubber or neoprene gloves, hats, coats and other garments that effectively protect the user from adverse effects which might result from a pesticide coming in contact with the skin during or after the handling or use of the pesticide;

(*ab*) "agricultural or forestry production" means the production of plants, animals, or both, by an agriculturist;

(*b*) "agriculturist" means a person who uses farm land for agricultural or forestry production;

(*ba*) "air-blast machine" means a pesticide application device utilizing an independent mechanically produced stream of air to assist the carrying of the pesticide beyond the orifice of the device;

(*c*) "Crown employee" means a Crown employee within the meaning of *The Public Service Act*;

(*d*) "drainage ditch" means a man-made watercourse, added to the natural land drainage system, primarily to collect and convey water and which, for some period each year, does not contain flowing water;

(*e*) "farm land" means land, or a farm structure, or both, used for agricultural or forestry production where it comprises,

(i) at least eleven acres that are contiguous except for division by a street, road, railway or water, or

(ii) less than eleven acres, if there has been an average gross annual revenue over the three years immediately preceding or a gross revenue in the year immediately preceding the date of the sale or proposed sale at retail of a pesticide for use on the land or the farm structure of not less than $2,000 from the sale of the products of agricultural or forestry production, or both, produced on the land or farm structures, or both;

(*f*) "farm structure" means a structure used for agricultural or forestry production but does not include a structure used primarily for storage or human habitation;

(*g*) "fire resistance rating" means the rating assigned to a component or assembly from a test of the time of fire resistance of a representative specimen conducted in accordance with,

(i) Underwriters' Laboratories of Canada Standard for Fire Tests of Building Construction and Materials, ULC 263, 1971, or

(ii) Underwriters' Laboratories of Canada Standard for Fire Tests of Door Assemblies, ULC 10 (b), 1970;

(*h*) "fire separation" means a barrier against the spread of fire and smoke;

(*i*) "herbicide" means any pesticide used for the destruction or control of any vegetation;

(*j*) "hormone type herbicide" means any pesticide containing,

(i) 2,4-D,

(ii) 2,4-DB,

(iii) 2,4,5-T,

(iv) mecoprop,

(v) fenoprop,

(vi) MCPA,

(vii) MCPB,

(viii) dichlorprop,

(ix) dicamba,

(x) TBA,

(xi) fenac, or

(xii) picloram;

(*k*) "limited wholesale vendor" means a person who may sell at wholesale only those pesticides mentioned in section 89 in accordance with the provisions of section 89;

(*l*) "mammalian pest" means any rat, mouse, raccoon, rabbit, porcupine, squirrel, groundhog, mole or skunk;

(*m*) "retail vendor" means a person who sells at retail;

(*n*) "sell at retail" means sell, transfer or offer to sell or transfer to a purchaser or a transferee for the purpose of use and not for resale or retransfer;

(*o*) "sell at wholesale" means sell, transfer or offer to sell or transfer, other than at retail;

(*p*) "store for sale at retail" means keep for sale at retail in an area that is separated from that part of the premises in which the retail vendor normally transacts business;

(*q*) "store for sale at wholesale" means keep for sale at wholesale in an area that is separated from that part of the premises in which the wholesale vendor or limited wholesale vendor normally transacts business;

(*r*) "warning gas" means a gas that immediately identifies its presence by its effect on the senses when a person is exposed to it;

(*s*) "wholesale vendor" means a person who sells at wholesale. O. Reg. 618/74, s. 1; O. Reg. 577/76, s. 1.

THE PESTICIDES ADVISORY COMMITTEE

**2.**—(1) The term of office of a member of the Committee other than a member who is a Crown employee is three years.

(2) Every vacancy on the Committee caused by the death, resignation or incapacity of a member may be filled by the appointment of a member for the remainder of the term of the member. O. Reg. 618/74, s. 2.

**3.**—(1) The Committee shall meet,

(*a*) at the request of the Minister;

(*b*) at the request of the chairman; or

(*c*) [illegible] of the members of the Committee

(2) The secretary of the Committee shall,

(*a*) keep a record of all business transacted at a meeting of the Committee;

(*b*) have the custody of all reports, submissions and correspondence received by the Committee; and

(*c*) produce the records and other documents mentioned in clause *b* for inspection when requested by the Minister or an officer of the Ministry designated by him. O. Reg. 618/74, s. 3.

**4.** A member of the Committee, other than a member who is an officer of the Crown, shall be paid,

(*a*) $135 if he is the chairman; or

(*b*) $105 if he is not the chairman; and

(*c*) his necessary travelling and other expenses,

for each day that he is engaged upon the work of the Committee. O. Reg. 618/74, s. 4.

APPLICATION FOR LICENCE

**5.** An application for a type of licence mentioned in Column 1 of the following Table shall be in the form set opposite thereto in Column 2.

TABLE

| Item | Column 1 | Column 2 |
|---|---|---|
| | Type of Licence | Form of Application for Licence |
| 1 | Operator (all classes) | 2 |
| 2 | Structural Exterminator (all classes) | 1 |
| 3 | Land Exterminator (all classes) | 1 |
| 4 | Water Exterminator (all classes) | 1 |
| 5 | Wholesale Vendor (all classes) | 8 |
| 6 | Retail Vendor (all classes) | 9 |

GENERAL REQUIREMENTS FOR EXTERMINATOR'S LICENCE

**6.**—(1) Subject to subsection 4, an applicant for any class of exterminator's licence shall submit with his application the names of at least two reputable persons who have known the applicant for at least one year immediately prior to the application and are prepared to attest to his good reputation. O. Reg. 577/76, s. 3 (1).

(2) An applicant for any class of exterminator's licence shall,

(*a*) be physically fit for the purpose of performing exterminations and provide a certificate to this effect from a legally qualified medical practitioner;

(*b*) submit to an examination referred to in section 11 and be recommended by the examiners as competent to hold the class of licence for which he has applied;

(*c*) have grade 10 standing or other qualifications considered by the Director to be equivalent thereto;

(*d*) be at least sixteen years of age.

(3) Subject to subsection 4, in addition to the requirements mentioned in subsections 1 and 2, an applicant for any class of structural exterminator's licence shall meet the requirements of section 29.

(4) An applicant for any class of exterminator's licence to perform exterminations on his own premises or the premises of his employer is exempt from subsection 1. O. Reg. 618/74, s. 6 (2-4).

(5) Every applicant for an exterminator's licence and every exterminator shall notify the Director of any change in the information furnished in or with his application within ten days after the effective date of the change. O. Reg. 577/76, s. 3 (2).

FEES

**7.**—(1) The fee for each class of an operator's licence, or a renewal of any of them, is $15.

(2) The fee for each class of an exterminator's licence, or a renewal of any of them, is $10.

(3) The fee for a wholesale vendor's licence, or a renewal thereof, is $100.

(4) The fee for a limited wholesale vendor's licence, or a renewal thereof, is $20.

(5) The fee for a retail vendor's licence, Class 1, or a renewal thereof, is $ 0

(6) The fee for a retail vendor's licence, Class 2, or a renewal thereof, is $15.

(7) The fee for a retail vendor's licence, Class 3, or a renewal thereof, is $10.

(8) The fee for a licence, or a renewal thereof, shall be submitted with the application for the licence or renewal. O. Reg. 618/74, s. 7.

**8.**—(1) An application for a licence mentioned in Column 1 of the Table of section 5, or a renewal thereof, shall be made to the Director.

(2) An application for a renewal of a licence shall be made in the case of,

(*a*) an operator's licence, at least thirty days prior to the expiry date of the licence;

(*b*) an exterminator's licence, at least thirty days prior to the expiry date of the licence; and

(*c*) a vendor's licence, at least sixty days prior to the expiry date of the licence. O. Reg. 618/74, s. 8.

EXAMINERS

**9.**—(1) The Director shall appoint the examiners of applicants for licences.

(2) The term of an appointment as an examiner is three years and is subject to cancellation by the Director.

(3) An examiner, other than one who is a Crown employee, shall be paid $75 and his necessary travelling and other expenses for each day that he is engaged upon his work as an examiner. O. Reg. 618/74, s. 9.

EXAMINATIONS

**10.**—(1) The fee for an examination for each class of licence is $5 and shall be submitted together with the application.

(2) An applicant who fails to attend a scheduled examination and fails to notify the Director of his inability to attend at least forty-eight hours before the time fixed for the examination shall forfeit his examination fee and be required to pay a new examination fee.

(3) Notwithstanding subsection 2, an applicant who fails to attend a scheduled examination three times within a six-month period shall forfeit his examination fee and, if required by the Director, shall submit a new application for the licence.

(4) An applicant for a licence shall be given at least seven days notice of the date, time and place

(3) No applicant shall be permitted to try an examination for a licence as an operator or for the same class of exterminator's licence more than twice in any period of twelve months. O. Reg. 618/74, s. 10.

EXTERMINATOR'S LICENCE

**11.**—(1) An oral examination for any class of exterminator's licence shall be given by at least two examiners.

(2) An examination of an applicant for a licence to perform any class of structural exterminations shall be an oral examination.

(3) An examination of an applicant for a licence to perform any class of land or water exterminations may be a written or oral examination, or both.

(4) At least one examiner or a person designated by the examiners shall be present at a written examination.

(5) The examiners shall examine the applicant for any class of exterminator's licence on his knowledge of,

(*a*) the provisions of the Act and the regulations thereunder;

(*b*) the toxicity and hazard, first aid and antidotes and the forms and methods of application of the pesticide or pesticides that the prescribed class of licence for which the applicant is applying shall entitle him to use; and

(*c*) the identification, life history, habits, characteristics and control of pests that may be subject to extermination. O. Reg. 618/74, s. 11.

**12.**—(1) The Director may require an applicant for renewal of any class of exterminator's licence to pass an examination before renewing the licence.

(2) When so required by the Director, an applicant for renewal of any class of exterminator's licence shall provide the Director with a report of a legally qualified medical practitioner establishing that the applicant is physically fit for the purpose of performing exterminations. O. Reg. 618/74, s. 12.

OPERATORS' LICENCES

**13.**—(1) An operator's licence, of the class prescribed in Column 1 of the following Table, is authority to operate an extermination business set out in Column 2 thereof:

TABLE

| | Column 1 | Column 2 |
|---|---|---|
| Item | Class of Operator's Licence | Extermination Business |
| 1 | 1 | Structural, land and water exterminations |
| 2 | 2 | Structural and land exterminations |
| 3 | 3 | Structural and water exterminations |
| 4 | 4 | Land and water exterminations |
| 5 | 5 | Structural exterminations |
| 6 | 6 | Land exterminations |
| 7 | 7 | Water exterminations |

(2) Every operator's licence shall have endorsed thereon the class of operator's licence for which it has been issued. O. Reg. 618/74, s. 13.

**14.**—(1) Every applicant for an operator's licence or a renewal thereof shall submit such information and material as the Director may require with respect to the character, qualifications and financial responsibility of the applicant or where the applicant is a corporation, with respect to the character and qualifications of the directors and officers of the applicant and the financial responsibility of the applicant.

(2) Where several persons intend to operate an extermination business in association with each other under the authority of one operator's licence, it is a requirement for the licence that each of such persons signs the application for the licence.



designate on Form 2 the directors or officers who are the Official Representatives of the corporation and whose duty it is to ensure that the Act and the regulations thereunder are complied with and who shall sign the application.

(4) Every operator shall notify the Director of any change in the information furnished in Form 2 or pursuant to section 17 within ten days after the effective date of the change. O. Reg. 577/76, s. 4.

**15.**—(1) Upon receiving the application in Form 2, the Director may require the applicant to undergo an oral examination.

(2) If an examination mentioned in subsection 1 is required by the Director, the notice mentioned in subsection 4 of section 10 shall set out any information or evidence in respect of the qualifications of the applicant to operate an extermination service that the Director may require him to produce. O. Reg. 618/74, s. 15 (1, 2).

(3) Where the applicant is a corporation, any examination required under subsection 1 shall be taken by the Official Representative or Representatives of the applicant designated under subsection 3 of section 14. O. Reg. 577/76, s. 5.

(4) At least three examiners shall examine an applicant for an operator's licence. O. Reg. 618/74, s. 15 (4).

**16.** An applicant for any class of operator's licence or a renewal thereof shall satisfy the Director that he is at least eighteen years of age or, in the case of a corporation that the Official Representatives are each at least eighteen years of age. O. Reg. 577/76, s. 6.

**17.**—(1) Subject to subsection 2, the Director may require an applicant for any class of operator's licence or renewal thereof to appear before him and submit evidence and information respecting the qualifications of the applicant and any other person involved in the control and management of the extermination business.

(2) At least seven days before the appearance mentioned in subsection 1 the applicant shall be given notice of,

(*a*) the date, time and place fixed for his appearance before the Director; and

(*b*) the particulars of the information and evidence that the Director may require the applicant to produce. O. Reg. 618/74, s. 17.

**18.**—(1) Every operator shall employ at least one licensed exterminator for every four or fewer employees who assist in performing exterminations. Where an operator has more than one location, he shall,

(*a*) have a licensed exterminator in charge at each location who is normally present at least once during each business day;

(*b*) notify the Director of the address of each location and the name of the licensed exterminator in charge at each location; and

(*c*) notify the Director of any change in the information furnished under clause *b* within ten days after the effective date of the change. O. Reg. 618/74, s. 18.

INSURANCE REQUIREMENTS

**19.**—(1) An operator shall carry insurance in a form approved by the Superintendent of Insurance of the Province of Ontario for every extermination business carried on by him with respect to the liability of the operator and all of his employees arising out of any extermination business carried on by him for death, injury or property damage. O. Reg. 577/76, s. 7.

(2) Subject to subsection 3, where an operator carries on an extermination business, the liability coverage provided by the contract of insurance required under subsection 1 shall be in an amount of not less than $25,000 to each employee of the operator provided that the contract of insurance may limit the insurer's liability under the contract of insurance arising out of any one incident to $50,000.

(3) Where an operator furnishes satisfactory evidence that his business is subject to Part I of *The Workmen's Compensation Act* and that he is paying all amounts due under Part I of *The Workmen's Compensation Act* as they fall due then so long as he continues to pay all such amounts as they fall due and to comply with all the provisions of *The Workmen's Compensation Act* he is exempt from subsection 2.

(4) Where an operator carries on an extermination business for which he is the holder of a Class 1, 2, 3 or 5 operator's licence, the contract of insurance required under subsection 1 shall provide coverage in an amount of not less than,

(*a*) $300,000 with respect to the death of or bodily injury to any person not an employee of the operator for each such person provided that the contract of insurance may limit the insurer's liability under the contract of insurance arising out of any one incident to $500,000; and

(*b*) $200,000 with respect to property damage arising out of any one incident.

(5) Where an operator carries on an extermination business for which he is the holder of a Class 4, 6 or 7 operator's licence and is not the holder of a Class 1, 2, 3 or 5 operator's licence, the contract of insurance required under subsection 1 shall provide coverage in an amount of not less than,

(*a*) $100,000 with respect to the death or bodily injury to any person not an employee of the operator for each such person provided that the contract of insurance may limit the insurer's liability under the contract of insurance arising out of any one incident to $200,000; and

(*b*) $10,000 with respect to property damage arising out of any one incident.

(6) The contract of insurance required under subsection 1 may provide that the insured shall be responsible for the first $250 of each claim for which an amount of coverage is required under subsections 4 and 5.

(7) Where a contract of insurance required by subsection 1 limits the insurer's liability to an aggregate amount, except as permitted by subsections 2, 4 and 5, the contract shall contain a provision requiring the insurer to notify the Director of all sums of money paid by reason of the liability of the insured.

(8) Where an operator has a contract of insurance which is required to have the provision referred to in subsection 7, the operator shall advise the Director of all sums of money paid under the contract of insurance.

(9) Every contract of insurance furnished in satisfaction of the requirements of this section shall provide that,

(*a*) the insurer shall give fifteen days notice by registered mail to the Director prior to any cancellation of the contract by the insurer or the insured taking effect;

(*b*) the contract of insurance shall remain in full force and effect until the notice provided for in clause *a* has expired; and

(*c*) the insurer shall pay any claims covered by the contract of insurance to any person making such a claim who has recovered a judgment thereon notwithstanding any act or default of the insured which might make the policy void or give the insurer a defence to an action by the insured provided that such provision shall not limit the insurer's right to recover any payment so made from the insured.

CLASSES OF PESTICIDES

**20.** For the purposes of the Act and this Regulation pesticides are classified as follows:

(*a*) the pesticides set out in Schedule 1 are classified as Schedule 1 pesticides;

(*b*) the pesticides set out in Schedule 2 are classified as Schedule 2 pesticides;

(*c*) the pesticides set out in Schedule 3 are classified as Schedule 3 pesticides;

(*d*) the pesticides set out in Schedule 4 are classified as Schedule 4 pesticides;

(*e*) the pesticides set out in Schedule 5 are classified as Schedule 5 pesticides; and

(*f*) the pesticides set out in Schedule 6 are classified as Schedule 6 pesticides. O. Reg. 618/74, s. 20; O. Reg. 577/76, s. 8.

**21.**—(1) Subject to subsection 3, no person shall use any pesticide in an extermination unless it is registered under the *Pest Control Products Act* (Canada) and assigned a registration number under that Act and is classified under this Regulation.

(2) Subject to subsection 3, no person shall use in an extermination any pesticide,

(*a*) for any purpose other than that for which the pesticide is sold or represented;

(*b*) in any manner other than that designated on the conditions of registration; and

(*c*) for any purpose other than that for which the pesticide is authorized for use under this Regulation. O. Reg. 618/74, s. 21 (1, 2).

(3) Where a person uses a pesticide in an extermination for the purpose of research or a test,

(*a*) by a Research Centre, University or other institution of learning, a professional researcher from industry or the Government of Ontario, the Government of Canada or a person under the supervision or authority of a professional researcher from industry or the Government of Ontario or the Government of Canada, on the premises of such centre or institution, or on experimental premises obtained for this purpose; or

(*b*) where approval of the extermination has been obtained from the Director at least seven days before the extermination is



he is exempt from subsections 1 and 2 and from subsection 1 of section 4 and subsection 1 of section 6 of the Act for that extermination. O. Reg. 577/76, s. 9.

(4) Where an extermination is performed under subsection 3, the crop, if any, remaining at the conclusion of the research or test shall be destroyed by the person responsible for the extermination unless an alternative method for the disposal of the crop is approved by the Director.

(5) Notwithstanding subsection 1 and subject to subsections 2 and 7, an agriculturist may use on his farm land an imported pesticide that is identical with both a pesticide registered under the *Pest Control Products Act* (Canada) and a pesticide classified under this Regulation.

(6) Every pesticide imported by an agriculturist for use on his farm land is prescribed for the purpose of subsection 1 of section 6 of the Act.

(7) An agriculturist shall not use a pesticide mentioned in subsection 6 unless he has applied for a permit in Form 3 and is the holder of a permit for the land extermination. O. Reg. 618/74, s. 21 (4-7).

**22.** No person shall use water from a lake, river or other surface water in performing exterminations unless the equipment used in the extermination is equipped with an effective device to prevent back-flow. O. Reg. 618/74, s. 22.

**23.** No person shall wash any equipment used to perform an extermination in any lake, river or other surface water or in such a manner that any pesticide may be directly or indirectly discharged or deposited in any lake, river or other surface water. O. Reg. 618/74, s. 23.

CONTAINERS

**24.**—(1) No person, other than a wholesale vendor or a limited wholesale vendor, shall have in his possession a pesticide other than in the container in which it was originally offered for sale.

(2) Subsection 1 does not apply to a person,

(*a*) who is performing an extermination in accordance with the Act and this Regulation; or

(*b*) who places the pesticide into a secondary container of a type and composition that is customarily used or approved by the manufacturer of the pesticide for that pesticide and bears a label in English denoting the trade name or common name and concentration of each active ingredient in the pesticide product. O. Reg. 618/74, s. 24.

**25.**—(1) Subject to subsection 2, an empty container that has been used to hold a Schedule 1, 2 or 5 pesticide shall be disposed of by puncturing or breaking and burying the container in such a manner that it is covered by at least eighteen inches of soil and is not near any watercourse or water table.

(2) An empty container that has been used to hold a Schedule 1, 2 or 5 pesticide need not be disposed of if it has been decontaminated in a manner approved by the Director. O. Reg. 618/74, s. 25.

**26.** Where the original container of a Schedule 1, 2 or 5 pesticide is damaged or broken, the person responsible for the pesticide shall, under the direction of the person who has registered the pesticide under the *Pest Control Products Act* (Canada), and to the satisfaction of the Director,

(*a*) replace the container with a container equivalent to that originally used; or

(*b*) dispose of the container and its contents by burying them under eighteen inches of soil in such a manner that they are not near any watercourse or water table; and

(*c*) clean up any spillage and decontaminate any area, carrier or commodity that has come in contact with the pesticide. O. Reg. 618/74, s. 26.

FIRES, ACCIDENTS, THEFTS

**27.**—(1) If a pesticide is involved in a fire or other occurrence that may result in the pesticide being released into the environment other than in the normal course of affairs, the person responsible for a pesticide shall forthwith notify the Director.

(2) The person responsible for a pesticide shall forthwith notify the Director whenever any pesticide is stolen or otherwise passes out of his possession or control other than in the normal course of his affairs. O. Reg. 577/76, s. 10.

STRUCTURAL EXTERMINATIONS

**28.**—(1) A structural exterminator's licence of the class prescribed in Column 1 of the following Table is authority to use a pesticide prescribed in Column 2 thereof under the conditions of use set out in Column 3 thereof:

| Item | Column 1<br>Class of Structural Exterminator's Licence | Column 2<br>Pesticide Authorized for Use | Column 3<br>Conditions of Use |
|---|---|---|---|
| 1 | 1 | Schedules 1, 2, 3, 4, 5 and 6 | Any structural use except termite control |
| 2 | 2 | (*a*) Schedules 2, 3, 4 and 6 | Any structural use except termite control |
| | | (*b*) Schedules 1 and 5 | Assisting Class 1 Structural Exterminator |
| 3 | 3 | (*a*) Schedules 3, 4 and 6 | Any structural use except termite control |
| | | (*b*) Schedule 2 | Assisting Class 2 Structural Exterminator |
| 4 | 4 | (*a*) Schedules 3, 4 and 6 | Assisting Class 3 Structural Exterminator |
| | | (*b*) Pesticide(s) stipulated on licence | Assisting Class 5 or Class 6 Structural Exterminator |
| 5 | 5 | Pesticide(s) stipulated on licence | Control of termites and other wood-destroying insects |
| 6 | 6 | Pesticide(s) stipulated on licence | Use, premises and equipment stipulated on licence |

O. Reg. 618/74, s. 28 (1); O. Reg. 577/76, s. 11.

(2) Every structural exterminator's licence shall have endorsed thereon the class of exterminator's licence for which it has been issued. O. Reg. 618/74, s. 28 (2).

STRUCTURAL EXTERMINATOR'S LICENCE REQUIREMENTS

**29.**—(1) An applicant for a Class 1 structural exterminator's licence is required to,

(*a*) be licensed as a Class 2 structural exterminator at the time of his application, and have assisted a Class 1 structural exterminator for a minimum period of six months; or

(*b*) satisfy the Director that he has sufficient knowledge and experience to be licensed as a Class 1 structural exterminator.

(2) An applicant for a Class 2 structural exterminator's licence is required to,

(*a*) be licensed as a Class 3 structural exterminator at the time of his application, and to have assisted a Class 2 structural exterminator for a minimum period of six months; or

(*b*) satisfy the Director that he has sufficient knowledge and experience to be licensed as a Class 2 structural exterminator.

(3) An applicant for a Class 3 structural exterminator's licence is required to,

(*a*) have been licensed as a Class 4 structural exterminator at the time of his application, and to have assisted a Class 3 structural exterminator for a minimum period of one year; or

(*b*) satisfy the Director that he has sufficient knowledge and experience to be licensed as a Class 3 structural exterminator.

(4) An applicant for a Class 5 structural exterminator's licence is required to,

(*a*) have been licensed as a Class 4 structural exterminator at the time of his application, and to have assisted a Class 5 structural exterminator for a minimum period of six months; or

(*b*) satisfy the Director that he has sufficient knowledge and experience to be licensed as a Class 5 structural exterminator.



(5) An applicant for a Class 6 structural exterminator's licence is required to,

(*a*) have been licensed as a Class 4 structural exterminator at the time of his application and to have assisted a Class 6 structural exterminator for a minimum period of six months; or

(*b*) satisfy the Director that he has sufficient knowledge and experience to be licensed as a Class 6 structural exterminator. O. Reg. 618/74, s. 29.

GENERAL REQUIREMENTS FOR STRUCTURAL EXTERMINATION PERMITS

**30.**—(1) A structural extermination by means of a Schedule 1, 2, 3 or 5 pesticide is prescribed for the purpose of subsection 1 of section 6 of the Act.

(2) Subject to section 33, an application for a permit for a structural extermination by means of a pesticide mentioned in subsection 1 shall be in Form 10. O. Reg. 618/74, s. 30.

**31.**—(1) A holder of any class of structural exterminator's licence authorized to use a Schedule 2 or 3 pesticide is exempt from subsection 1 of section 6 of the Act for the structural extermination by means of that pesticide.

(2) Any person exempt from the licensing requirement of subsection 1 of section 4 of the Act for a structural extermination by means of a Schedule 2 or 3 pesticide is also exempt from subsection 1 of section 6 of the Act for that extermination. O. Reg. 618/74, s. 31.

STRUCTURAL EXTERMINATION USE AND PERMIT REQUIREMENTS FOR METHYL BROMIDE, ALUMINUM PHOSPHIDE AND CYANIDE COMPOUNDS

**32.**—(1) Sections 33 to 41, both inclusive, apply to structural exterminations in which any Schedule 1 or 5 pesticide containing methyl bromide or cyanide compounds is used.

(2) Sections 33, 34, 37, 38, 39 and 40 and subsections 1, 4 and 5 of section 41 apply to structural exterminations in which any Schedule 1 or 5 pesticide containing aluminum phosphide is used in a general space fumigation of a building or a portion thereof. O. Reg. 577/76, s. 12.

**33.**—(1) An application for a permit for a structural extermination by means of a pesticide mentioned in section 32 shall be in Form 4. O. Reg. 618/74, s. 33 (1).

(2) Every applicant for a permit mentioned in subsection 1 shall,

(*a*) be licensed as a Class 1 structural exterminator; or

(*b*) be licensed as a Class 4 structural exterminator and authorized to use the pesticide mentioned in the application for the permit. O. Reg. 618/74, s. 33 (2); O. Reg. 577/76, s. 13.

**34.**—(1) At least twenty-four hours before but not more than seven days before performing an extermination with a pesticide mentioned in section 32, the exterminator shall deliver a notice in writing,

(*a*) to every occupant eighteen years of age and over in the building or vehicle or on the land where the extermination is to be performed;

(*b*) to at least one occupant eighteen years of age or over,

(i) of every building adjoining the building where the extermination is to be performed, and

(ii) of every building so located that the extermination constitutes an actual or potential hazard to its occupants; and

(*c*) to the nearest police and fire department having jurisdiction where the structural extermination is to be performed.

(2) Clause *a* of subsection 1 does not apply to a commercial or industrial building where notice has been given to the owner of the building or his representative.

(3) Every notice under subsection 1 shall set out,

(*a*) the address where the extermination is to be performed;

(*b*) that there is danger of poisonous gas;

(*c*) the date when it is proposed to perform the extermination;

(*d*) that occupants are to vacate and remain out of the buildings, vehicles or lands during the periods of extermination and airing-out; and

(*e*) such other information as the Director may require.

(4) The exterminator shall ensure that the buildings, vehicles or lands referred to in this section are unoccupied during the periods of extermination and airing-out.

(5) Within seven days after the extermination has been completed, the exterminator shall so notify the Director. O. Reg. 618/74, s. 34.

**35.** When the pesticide being used in an extermination is in the form of a gas and is not a warning gas, the exterminator shall release a warning gas with the release of the pesticide. O. Reg. 618/74, s. 35.

**36.** No person shall use a pesticide containing a cyanide compound for an extermination in any building or vehicle where the pesticide may come in contact with the waters of any stream, lake or water flowing into any stream or lake. O. Reg. 618/74, s. 36.

**37.** Before an extermination is performed by means of a pesticide mentioned in section 32 in a building or vehicle the exterminator shall,

(*a*) seal all openings into the area in which the extermination is to be performed, including drains, ducts, vents and cracks in a manner sufficient to make the area gas-tight; and

(*b*) remove from the area all water and food likely to absorb the gas being used. O. Reg. 618/74, s. 37.

**38.**—(1) Before performing an extermination by means of a pesticide mentioned in section 32, the exterminator shall post a placard at least fourteen inches long and ten inches wide,

(*a*) at all entrances to the building or vehicle and land on which the extermination is to be performed and bearing the word "danger" in red letters at least 2½ inches high on a white background and indicating that an extermination is being performed on the premises and setting out the name of the exterminator and his emergency telephone number; and

(*b*) at all entrances to buildings designated in clause *b* of subsection 1 of section 34 bearing the word "danger" in green letters at least 2½ inches high on a white background and indicating that an extermination is being performed in an adjoining building.

(2) The exterminator shall ensure that the placards posted under subsection 1 are illuminated from sundown to sunrise. O. Reg. 618/74, s. 38 (1, 2).

(3) The exterminator shall ensure that no placard is removed and the building or vehicle is not reoccupied until the airing-out is completed. O. Reg. 577/76, s. 14.

**39.**—(1) The exterminator shall ensure that no person enters or remains in a building or vehicle where an extermination is being or has been performed using a pesticide mentioned in section 32 until the airing-out is completed in accordance with section 41 except,

(*a*) the exterminator

(*b*) a provincial officer designated under the Act;

(*c*) a full-time fire fighter as defined in *The Fire Departments Act*; or

(*d*) a member of any police force established under *The Police Act*.

(2) During the period mentioned in subsection 1 the exterminator shall,

(*a*) lock all doors and entrances to the building or vehicle; and

(*b*) post adult guards in a manner sufficient to prevent any person, other than those mentioned in subsection 1, from entering the building or vehicle. O. Reg. 618/74, s. 39.

**40.** The exterminator shall ensure that no person mentioned in subsection 1 of section 39 enters or remains in the building or vehicle after an extermination therein is commenced and before the airing-out is completed under section 41 unless he employs adequate respiratory protection and he is accompanied by at least one other adult person mentioned in subsection 1 of section 39 similarly protected. O. Reg. 577/76, s. 15.

**41.**—(1) Where an extermination by means of a pesticide mentioned in section 32 is completed, the exterminator shall,

(*a*) remove and bury under at least eighteen inches of soil, and not near any watercourse or water table, all substances used for the extermination or for sealing openings;

(*b*) circulate fresh air to every air space in the buildings or vehicles described in section 34; and

(*c*) make the test prescribed in subsection 2, 3 or 4, as the case may be.

(2) Where a pesticide containing methyl bromide is used in the extermination, the exterminator shall make tests by means of a halide-leak detector for the detection of the presence of methyl bromide gas at the floor level of each room, basement, closet, attic and any other enclosed space in the building or vehicle in which the extermination was performed. O. Reg. 618/74, s. 41 (1, 2).

(3) Where a pesticide containing a cyanide compound is used in the extermination, the exterminator shall make tests for the detection of the presence of hydrocyanic acid gas in the building or vehicle in which the extermination was performed by means of glass detector tubes used for [illegible] gas at

(*a*) each wall in every room, closet or other enclosed space;

(*b*) each floor and wall in the basement; and

(*c*) each ceiling and wall of every attic room.

(4) Where a pesticide containing aluminum phosphide is used in the extermination, the exterminator shall make tests for the detection of the presence of phosphine gas in the building or vehicle in which the extermination was performed by means of glass detector tubes used for determining the concentrations of phosphine gas.

(5) The airing-out of the building or vehicle is not completed,

(*a*) where a pesticide containing methyl bromide has been used and the flame of the halide-leak detector changes to a greenish colour;

(*b*) where a pesticide containing a cyanide compound has been used and a reaction shows in detector tubes to ten or more PPM of hydrocyanic acid gas; or

(*c*) where a pesticide containing aluminum phosphide has been used and a reaction shows in detector tubes to 0.3 PPM or more of phosphine gas. O. Reg. 577/76, s. 16.

(6) During the extermination and until the airing-out is completed in accordance with this section, no person shall move the vehicle, if any, without the permission of the Director. O. Reg. 618/74, s. 41 (6).

METHYL BROMIDE, ALUMINUM PHOSPHIDE AND CYANIDE COMPOUNDS PERMIT EXEMPTIONS

**42.**—(1) Subject to subsection 3, where an exterminator engages in an extermination by means of a pesticide mentioned in section 32, in an enclosed space or vault that,

(*a*) is gas tight; and

(*b*) where the enclosed space or vault is inside or opens into a building, is equipped in accordance with subsection 2,

and if the exterminator,

(*c*) has adequate respiratory protection on his person during the extermination;

(*d*) before a gas is released, searches the enclosed space or vault to ensure that it contains no person;

(*e*) locks the door by a padlock and keeps the

(*f*) is present during the airing-out period; and

(*g*) performs the tests prescribed in subsections 2, 3 and 4 of section 41, as the case may be, to determine whether the airing-out period is completed,

he is exempt from subsection 1 of section 6 of the Act and from sections 34, 37, 39 and 40 of this Regulation for that extermination. O. Reg. 618/74, s. 42 (1); O. Reg. 577/76, s. 18.

(2) The enclosed space or vault that is inside or opens into a building, mentioned in subsection 1, shall be equipped with,

(*a*) a sheet metal lining having soldered joints and covering the walls and ceilings or any other lining that is equivalent in the opinion of the Director;

(*b*) a concrete floor or wooden floor of which the joints are made gastight;

(*c*) a rubber gasket around the perimeter of all doors;

(*d*) an exhaust fan controlled by a switch from outside the enclosed space or vault capable of giving ten changes of air per hour and discharging exhaust gases into outside atmosphere at a point removed from any door, windows or openings; and

(*e*) provision to introduce gas from outside the enclosed space or vault.

(3) Before the initial use for an extermination of the enclosed space or vault mentioned in subsection 1, the exterminator shall notify the Director and shall not proceed with the extermination until the Director has approved the construction and equipment of the enclosed space or vault as required by this section. O. Reg. 618/74, s. 42 (2, 3).

**43.**—(1) Where an exterminator engages in an extermination by means of a pesticide containing methyl bromide and the gas is enclosed under a gas-tight covering and the extermination takes place,

(*a*) outside a building while,

(i) the exterminator and at least one other exterminator is present during the airing-out, and

(ii) all persons present during the introduction of the gas and airing-out period employ adequate respiratory protection, or

(*b*) inside a building that is separate from

44. No pesticide containing thallium sulphate, strychnine or zinc phosphide shall be used for an

47. No exterminator shall use a Schedule 1, 2 or 5

(c) no person employed in the extermination is present during the extermination and airing-out,

(ii) no part is used for human habitation,

(iii) the exterminator and at least one other exterminator is present during the introduction of gas and airing-out, and

(iv) all persons present during the introduction of the gas and airing-out period employ adequate respiratory protection,

he is exempt from subsection 1 of section 6 of the Act and sections 34, 37, 39 and 40 of this Regulation for that extermination. O. Reg. 618/74, s. 43; O. Reg. 577/76, s. 19 (1, 2).

(2) Where an exterminator is engaged in the extermination of rodents in burrows in the ground by the use of a Schedule 1 or 5 pesticide containing aluminum phosphide or a cyanide compound and,

(a) the burrows do not open into a building; and

(b) the exterminator has adequate respiratory protection on his person during the extermination,

he is exempt from subsection 1 of section 6 of the Act and sections 34, 37, 38, 39, 40 and 41 of this Regulation for that extermination.

(3) Where an extermination of a commodity is performed in a railway car, shipping container, truck, storage bin or under a gas-tight plastic tarpaulin by means of a Schedule 1 or 5 pesticide containing aluminum phosphide, the exterminator is exempt from subsection 1 of section 6 of the Act, and from sections 34, 38, 39, 40 and 41 of this Regulation for that extermination, but he shall,

(a) perform the extermination other than in a room which is used for human habitation;

(b) have adequate respiratory protection on his person; and

(c) post a placard at least fourteen inches long and ten inches wide at all entrances to the building or vehicle on which the extermination is to be performed and bearing the word "danger" in red letters at least 2½ inches high on a white background and indicating that an extermination is being performed on the premises. O. Reg. 577/76, s. 19 (3).

STRYCHNINE AND ZINC PHOSPHIDE

**44.** No pesticide containing thallium sulphate, strychnine or zinc phosphide shall he used for an extermination,

(a) in a room while it is being used for human habitation;

(b) in an area to which entry by any person cannot be barred; or

(c) in such a manner as to come in contact with or be likely to come in contact with food or drink intended for human or animal consumption. O. Reg. 618/74, s. 44.

**45.** Where a pesticide mentioned in section 44 is used in a structural extermination, the exterminator shall,

(a) keep, during the period of extermination, a record of the number and location of the baits used in the extermination; and

(b) remove every bait from the area when the extermination is completed. O. Reg. 618/74, s. 45.

USE RESTRICTIONS OF LINDANE

**46.**—(1) Where lindane in the form of a vapour is used in an extermination in a building while the building is occupied,

(a) the building shall not be sealed so as to impede the normal change of air; and

(b) the amount of vapour released in a twenty-four hour period shall not exceed the amount produced by one gram of lindane for each 15,000 cubic feet of space in the room in which the vapour is generated.

(2) No person shall release lindane in the form of a vapour in an extermination at a rate greater than that set out in clause *b* of subsection 1 unless,

(a) the area in which the extermination is performed is vacant from the time the vapour is released until the area has been aired out by free circulation of air for one hour; and

(b) all surfaces in the area likely to come into contact with food are washed.

(3) No person shall use a lindane vapourizer,

(a) where any food is prepared, stored or served; or

(b) in any rooms which are occupied by a person. O. Reg. 618/74, s. 46.



USE RESTRICTIONS OF SCHEDULE 1, 2 OR 5 PESTICIDES AS A SUSPENSION IN AIR

**47.** No exterminator shall use a Schedule 1, 2 or 5 pesticide as a suspension in air in a structural extermination unless he is accompanied by at least one other adult person. O. Reg. 618/74, s. 47.

**48.**—(1) Before a structural extermination is performed by means of a Schedule 1, 2 or 5 pesticide as a suspension in air the exterminator shall,

(a) lock from the outside all doors, except one leading into the building in which the extermination is to be performed;

(b) post on the outside of all doors leading into the building a placard,

(i) that is at least fourteen inches long and ten inches wide, and

(ii) that bears the words "danger—poisonous substances being used inside" in red block letters at least 2½ inches in height on a white background; and

(c) ensure that the building is vacant.

(2) After a Schedule 1, 2 or 5 pesticide as a suspension in air is released in a building, the exterminator shall lock the door except in clause *a* of subsection 1. O. Reg. 618/74, s. 48.

**49.** An exterminator who performs an extermination in a building by means of a Schedule 1, 2 or 5 pesticide as a suspension in air shall not permit any person to enter the building until the building is free of the pesticide as a suspension in air. O. Reg. 618/74, s. 49.

**50.** When a structural extermination by means of a Schedule 1, 2 or 5 pesticide as a suspension in air is completed, the exterminator shall forthwith bury all material being discarded under at least eighteen inches of soil in such a manner as not to be near any surface water or water table. O. Reg. 618/74, s. 50.

USE RESTRICTIONS OF SPOT FUMIGANTS

**51.** Where an extermination is performed by means of a pesticide containing ethylene dichloride, ethylene dibromide or carbon tetrachloride, the exterminator shall,

(a) perform the extermination other than in a room which is used for human habitation;

(b) employ adequate respiratory protection;

(c) exclude all persons not engaged in the extermination from the area during the extermination;

(d) be accompanied by at least one other person employing adequate respiratory protection; and

(e) post a placard at least fourteen inches long and ten inches wide at all entrances to the building or vehicle and land on which the extermination is to be performed and bearing the word "danger" in red letters at least 2½ inches high on a white background and indicating that an extermination is being performed on the premises. O. Reg. 577/76, s. 20.

**52.** Where a person performs an extermination in a building or enclosure by means of a pesticide containing chloropicrin, he shall ensure that,

(a) no person is in the building or any adjoining building;

(b) adequate respiratory protection is on his person at all times; and

(c) the building or enclosure is free from chloropicrin before any other person is allowed to enter. O. Reg. 618/74, s. 52; O. Reg. 577/76, s. 21.

STRUCTURAL EXTERMINATION LICENCE EXEMPTIONS

**53.** Where a person,

(a) is a householder and performs an extermination in the house which he occupies; or

(b) is a tenant of an apartment or flat which he has rented and performs an extermination in the apartment or flat occupied by him,

by means of a Schedule 3 pesticide, the householder or tenant, as the case may be, is exempt from subsection 1 of section 4 of the Act for that extermination. O. Reg. 618/74, s. 53.

**54.**—(1) Where a person performs an extermination by means of a Schedule 4 or 6 pesticide on premises owned or occupied by him or by a person of whom he is the full-time employee, he is exempt from subsection 1 of section 4 of the Act for that extermination.

(2) Subsection 1 applies in respect of an extermination of a tenanted apartment in an apartment building only if the person who performs the extermination is the tenant. O. Reg. 577/76, s. 22.

**55.**—(1) Where a person performs an extermination on animals within a farm structure by means of a Schedule 3, 4 or 6 pesticide and is licensed as a Class 5 or 10 land exterminator authorized to use the pesticide being used in the extermination, he is exempt from being licensed as a structural exterminator for such extermination.

(2) An agriculturist or his full-time employee who performs an extermination on animals within a farm structure occupied by him, by means of a Schedule 3, 4 or 6 pesticide, is exempt from being licensed as a structural exterminator for that extermination. O. Reg. 577/76, s. 23.

**56.** Where a person is licensed as a Class 10 land exterminator and performs an extermination in a farm structure with a pesticide mentioned in section 32, he is exempt from being licensed as a structural exterminator for that extermination. O. Reg. 618/74, s. 56.

**57.** Where an exterminator engages in an extermination in or upon an installation or machinery that is a fixture in a building using a pesticide containing both methyl bromide and a pesticide mentioned in section 51, provided that the methyl bromide does not exceed 30 per cent by weight of the pesticide and the exterminator,

(*a*) performs the extermination wholly within one room or a group of connected rooms, none of which is used for human habitation;

(*b*) employs adequate respiratory protection; and

(*c*) excludes all persons not engaged in the extermination from the room during the extermination,

he is exempt from the permit requirement of subsection 1 of section 6 of the Act and sections 34, 37, 39 and 40 of this Regulation for that extermination. O. Reg. 577/76, s. 24.

**58.** Where a person is the holder of a permit for a structural extermination by means of a Schedule 2 or 3 pesticide, he is exempt from subsection 1 of section 4 of the Act for that extermination. O. Reg. 618/74, s. 58.

LAND EXTERMINATIONS

**59.**—(1) A land exterminator's licence of the class prescribed in Column 1 of the following Table is authority to use the pesticide prescribed in Column 2 thereof under the conditions of use set out in Column 3 thereof.

TABLE

| Item | Column 1<br>Class of Land Exterminator's Licence | Column 2<br>Pesticide Authorized for Use | Column 3<br>Conditions of Use |
|---|---|---|---|
| 1 | 1 | Schedules 2, 3, 4 and 6 pesticides that are herbicides | Non-agricultural use |
| 2 | 2 | Schedules 3, 4 and 6 pesticides that are herbicides | Non-agricultural use |
| 3 | 3 | Schedules 2, 3, 4 and 6 pesticides other than herbicides | Non-agricultural use |
| 4 | 4 | Schedules 3, 4 and 6 pesticides other than herbicides | Non-agricultural use |
| 5 | 5 | Schedules 2, 3, 4, 5 and 6 pesticides other than herbicides | Agricultural land |
| 6 | 6 | Schedules 2, 3, 4 and 6 pesticides that are herbicides | Agricultural land |
| 7 | 7 | Schedules 2, 3, 4, 5 and 6 pesticides other than herbicides | From an airborne machine |
| 8 | 8 | Schedules 2, 3, 4 and 6 pesticides that are herbicides | From an airborne machine |
| 9 | 9 | Schedules 2, 3, 4, 5 and 6 pesticides other than herbicides | Air-blast machines and power dusters |
| 10 | 10 | Pesticide(s) stipulated on licence | Use, premises and/or equipment stipulated on licence |

(2) Every land exterminator's licence shall have endorsed thereon the class of land exterminator's licence for which it has been issued. O. Reg. 618/74, s. 59 (2).

GENERAL PERMIT REQUIREMENTS FOR LAND EXTERMINATION

**60.**—(1) A land extermination by means of a Schedule 1, 2, 3 or 5 pesticide is prescribed for the purpose of subsection 1 of section 6 of the Act.

(2) Subject to subsection 2 of section 66, an application for a permit for a land extermination by means of a pesticide mentioned in subsection 1 shall be in Form 10. O. Reg. 618/74, s. 60.

**61.**—(1) Subject to subsection 3 and section 66, a holder of any class of land exterminator's licence authorized to use a Schedule 1, 2, 3 or 5 pesticide is exempt from subsection 1 of section 6 of the Act for that extermination.

(2) Subject to subsection 3 and section 66, any person exempt from subsection 1 of section 4 of the Act for a land extermination by use of a Schedule 1, 2, 3 or 5 pesticide is also exempt from subsection 1 of section 6 of the Act for that extermination.

(3) No person shall perform a land extermination by means of a pesticide containing picloram unless he is a holder of a permit for the land extermination issued by the Director. O. Reg. 618/74, s. 61.

LAND EXTERMINATOR'S USE REQUIREMENTS FOR METHYL BROMIDE AND CYANIDE COMPOUNDS

**62.** Sections 63, 64 and 65 apply to land extermination by means of any Schedule 1 pesticide containing methyl bromide or cyanide compounds. O. Reg. 618/74, s. 62.

**63.** Before commencing exterminations with a pesticide mentioned in section 62 in a farm structure, which is deemed to be a land extermination for the purpose of this section, the exterminator shall deliver a notice to the nearest police and fire department having jurisdiction where the land extermination is to be performed setting out,

(*a*) the address where the extermination is to be performed;

(*b*) the pesticide to be used; and

(*c*) the time periods during which the exterminations are to be performed. O. Reg. 618/74, s. 63.

**64.** Before beginning an extermination using a pesticide mentioned in section 62, the exterminator shall post a placard at the immediate site in or on which the extermination is to be performed bearing the word "danger" in red letters at least $2\frac{1}{2}$ inches high on a white background, indicating that an extermination is being performed on the premises. O. Reg. 618/74, s. 64.

**65.**—(1) The exterminator shall ensure that after an extermination using a pesticide mentioned in section 62 is commenced, all doors and entrances to farm structures in which the extermination is being performed are locked. O. Reg. 618/74, s. 65 (1).

(2) The exterminator shall ensure that no person shall enter the farm structure after the extermination therein is commenced and before the airing-out is completed so that a safety hazard no longer exists, unless,

(*a*) he employs adequate respiratory protection; and

(*b*) he is accompanied by at least one other adult person similarly equipped. O. Reg. 618/74, s. 65 (2); O. Reg. 577/76, s. 26.

AIR-BLAST MACHINES

**65*a***. Where a land extermination is performed using an air-blast machine to apply a Schedule 2, 3, 4, 5 or 6 pesticide, the exterminator shall be the holder of a Class 9 land exterminator's licence or a Class 10 land exterminator's licence which is endorsed for the use of an air-blast machine. O. Reg. 577/76, s. 27.

AIRBORNE MACHINES

**66.**—(1) A holder of any class of land exterminator's licence authorized to use a Schedule 1 or 5 pesticide or a Schedule 2 pesticide containing a hormone-type herbicide from an airborne machine, requires a permit under subsection 1 of section 6 of the Act to perform the extermination authorized by his licence. O. Reg. 618/74, s. 66 (1); O. Reg. 577/76, s. 29.

(2) An application for the permit mentioned in subsection 1 shall be in Form 5. O. Reg. 618/74, s. 66 (2).

**67.** Where an extermination is performed from an airborne machine, the pilot of the airborne machine shall be the holder of a Class 7 or 8 land exterminator's licence, or the holder of a Class 3 water exterminator's licence which is endorsed for the use of an airborne machine. O. Reg. 577/76, s. 30.

**68.** Where a land or water extermination with an airborne machine is performed using a Schedule 1, 2 or 5 pesticide,

(*a*) the pesticide shall not be in a dust formulation; and

(*b*) the pilot of the machine shall not assist in the loading of the machine with the pesticide or otherwise expose himself to contact with it. O. Reg. 618/74, s. 68;

**69.**—(1) Every person who operates an airborne machine in performing land or water exterminations shall,

(*a*) keep a record in Form 6 of each land or water extermination performed by him for a period of one year after the extermination is completed or for such longer period as may be required by the Director in writing; and

(*b*) if the land or water extermination was performed for an operator, provide a copy of the record mentioned in clause *a* to the operator after the extermination is completed, and the operator shall keep a copy of the record for one year or for such longer period as may be required by the Director in writing. O. Reg. 577/76, s. 32.

(2) A pilot or operator, as the case may be, shall produce the records mentioned in subsection 1 to a provincial officer when requested by him and, unless provided with a copy of the records, the provincial officer may remove the records, or any portion thereof, in order to make copies. O. Reg. 618/74, s. 69 (2).

LAND EXTERMINATION EXEMPTIONS

**70.** Where a person performs a land extermination for domestic purposes on land occupied by him by means of a Schedule 3 pesticide, he is exempt from subsection 1 of section 4 of the Act for that extermination. O. Reg. 618/74, s. 70.

**71.**—(1) Where a person performs a land extermination by means of a Schedule 4 or 6 pesticide on premises owned or occupied by him or by a person of whom he is the full-time employee, he is exempt from subsection 1 of section 4 of the Act for that extermination.

(2) Where a person performs a land extermination by means of a Schedule 3 pesticide on premises to which the public is not admitted and which are owned or occupied by him or by a person of whom he is the full-time employee, he is exempt from subsection 1 of section 4 of the Act for that extermination. O. Reg. 577/76, s. 33.

**72.** Where an agriculturist performs a land extermination on the farm land on which he is engaged in agricultural or forestry production by means of a Schedule 2, 3, 4, 5 or 6 pesticide, he is exempt from subsection 1 of section 4 of the Act for that extermination. O. Reg. 577/76, s. 34.

**73.**—(1) Where an agriculturist who is enrolled as a custom sprayer with the Ministry and holds a valid certificate of enrolment issued by the Director performs a land extermination on farm land other than his own by means of a Schedule 2, 3, 4, 5 or 6 pesticide by the operation at any given time of only one piece of pesticide application equipment normally used on his own farm land, he is exempt from subsection 1 of section 4 of the Act for that extermination.

(2) Subsection 1 does not apply to a person who performs an extermination by means of an airborne machine.

(3) When a person who is an agriculturist and was enrolled with the Ministry as a custom sprayer prior to the 31st day of May, 1974, applies for a Class 5 or 6 land exterminator's licence, he is exempt from subsections 1 and 2 of section 6. O. Reg. 577/76, s. 35.

**74.** Where an inspector under *The Bees Act* is engaged in destroying bees by extermination under the authority of that Act by means of a Schedule 1 pesticide containing methyl bromide or a cyanide compound and,

(*a*) employs adequate respiratory protection;

(*b*) performs the extermination in open air;

(*c*) prevents all persons from coming into contact with the poisonous gases; and

(*d*) remains at the site of the extermination during the time that any poisonous gases are present,

he is exempt from subsection 1 of section 4 of the Act and from sections 63, 64 and 65 of this Regulation for that extermination. O. Reg. 618/74, s. 74; O. Reg. 577/76, s. 36.

**75.** Where a person uses a Schedule 1 pesticide containing a cyanide compound on his own property or the property of his employer for,

(*a*) killing diseased colonies of bees;

(*b*) killing a fur-bearing animal held under a licence issued pursuant to *The Fur Farms Act*; or

(*c*) killing unwanted chicks,

he is exempt from subsection 1 of section 4 of the Act and sections 63, 64 and 65 of this Regulation for that extermination. O. Reg. 618/74, s. 75.

**76.**—(1) Where an area weed inspector under *The Weed Control Act*, in accordance with his duties under that Act, performs a land extermination by means of a Schedule 2, 3, 4 or 6 pesticide that is a herbicide and uses a compressed-air hand sprayer or equipment no larger than that commonly called a knapsack sprayer, he is exempt from subsection 1 of section 4 of the Act for that extermination.

(2) A municipality which performs a land extermination for another municipality by means of a



subsection 2 of section 4 of the Act for that extermination. O. Reg. 577/76, s. 37.

**77.**—(1) Where an exterminator is licensed as a Class 1, 2, 3 or 6 structural exterminator and performs an extermination on animals on farm land, he is exempt from being licensed as a land exterminator for that extermination. O. Reg. 618/74, s. 77 (1); O. Reg. 577/76, s. 38 (1).

(2) Where an exterminator is licensed as a Class 1, 2, 3 or 6 structural exterminator and performs a land extermination for mammalian, avian or insect pests,

(*a*) on or near a waste disposal site defined under *The Environmental Protection Act, 1971*; or

(*b*) near the building or vehicle where he is performing the structural extermination for the mammalian, avian or an insect pest,

he is exempt from being licensed as a land exterminator for that extermination. O. Reg. 618/74, s. 77 (2); O. Reg. 577/76, s. 38 (2).

**78.** No operator shall permit a vehicle to be used in transporting or applying a pesticide to be used in connection with a land extermination performed by a person licensed to perform land exterminations as a Class 1, 2, 3, 4, 5, 6, 9 or 10 land exterminator unless a metal identification plate is obtained from in such a manner that the plate is visible and legible at all times. O. Reg. 577/76, s. 39.

SUPERVISION OF EQUIPMENT

**79.**—(1) Unless exempt from subsection 1 of section 4 of the Act, no person shall perform a land or water extermination for which pesticide application equipment is used unless the equipment is under supervision of an exterminator licensed to perform that extermination. O. Reg. 577/76, s. 41

(2) An exterminator shall not supervise an extermination or exterminations for which a total of more than four pieces of pesticide application equipment are being used at any time.

(3) Whenever an extermination mentioned in subsection 1 is being performed and the exterminator is not present, he shall ensure that a person at least sixteen years of age carrying a certificate signed by the exterminator certifying that the person is competent to perform the extermination is present and in charge of each piece of pesticide application equipment. O. Reg. 618/74, s. 79 (2).

WATER EXTERMINATIONS

**80.**—(1) A water exterminator's licence of the class prescribed in Column 1 of the following Table is authority to use a pesticide in Column 2 thereof under the conditions of use set out in Column 3 thereof:

TABLE

| | Column 1 | Column 2 | Column 3 |
|---|---|---|---|
| Item | Class of Water Exterminator's Licence | Pesticide Authorized for Use | Conditions of Use |
| 1 | 1 | Schedules 2, 3, 4 and 6 pesticides that are herbicides | Water application |
| 2 | 2 | Schedules 2, 3, 4 and 6 pesticides other than herbicides | Water application |
| 3 | 3 | Pesticide(s) stipulated on licence | Use, equipment and/or area to be treated stipulated on licence |

O. Reg. 618/74, s. 80 (1); O. Reg. 577/76, s. 42.

(2) Every water exterminator's licence shall have endorsed thereon the class of water exterminator's licence for which it has been issued. O. Reg. 618/74, s. 80 (2).

WATER EXTERMINATION PERMIT REQUIREMENTS

**81.** An application for a permit to perform a water extermination shall be in Form 7. O. Reg. 618/74, s. 81.

**82.** Revoked: O. Reg. 577/76, s. 43.

WATER EXTERMINATION LICENCE AND PERMIT EXEMPTIONS

**83.** Where a person performs a water extermination within the boundaries of premises owned or occupied by the person or by a person of whom he is a full-time employee,

(*a*) he is exempt from subsection 1 of section 4 of the Act for that extermination; and

(*b*) if such water is located wholly within the boundaries of such premises and does not discharge water by any means directly or indirectly, other than by percolation, into a well, lake, river, pond, spring, stream, reservoir or other water or watercourse that is located wholly or partly outside the boundaries of the premises, then he is exempt from subsection 2 of section 6 of the Act for that extermination. O. Reg. 557/76, s. 44.

**84.** Where a person performs a water extermination for the control of plants that emerge from or float on the surface of the water in a drainage ditch, which at the time of the extermination contains no moving water, and the person uses a Schedule 2, 3, 4 or 6 pesticide that is labelled for that use, he is exempt from subsection 2 of section 6 of the Act for that extermination. O. Reg. 577/76, s. 45.

VENDOR LICENCES AND REQUIREMENTS

**85.** The following classes of vendor's licences are prescribed:

1. Wholesale vendor's licence.
2. Limited wholesale vendor's licence.
3. Class 1 retail vendor's licence.
4. Class 2 retail vendor's licence.
5. Class 3 retail vendor's licence. O. Reg. 618/74, s. 85.

**86.**—(1) Subject to subsection 2, an applicant for any class of vendor's licence or renewal thereof, shall,

(*a*) submit with his application the fee prescribed by section 7 for the class of vendor's licence he is applying for; and

(*b*) unless the applicant is a corporation or a partnership, be at least eighteen years of age.

(2) Where the applicant is a corporation or partnership it shall designate on its application the partner, director or officer who is the Official as the case may be, who shall be at least eighteen years of age and shall sign the application and whose duty it is to ensure compliance with the Act and the regulations thereunder.

(3) An applicant for a wholesale vendor's licence or limited wholesale vendor's licence shall submit with his application the name and address of,

(*a*) each premise to be covered by the licence; and

(*b*) a person responsible for each premise to be covered by the licence whose duty it is to ensure compliance with this Act and the regulations thereunder.

(4) The holder of any class of vendor's licence shall notify the Director in writing of any change in the information submitted under this section within fourteen days of the effective date of the change. O. Reg. 618/74, s. 86.

WHOLESALE AND LIMITED WHOLESALE VENDOR'S LICENCE REQUIREMENTS

**87.** A holder of a wholesale vendor's licence or limited wholesale vendor's licence who sells at wholesale from more than one premises does not require a licence for each premise if he has met the requirements of subsections 3 and 4 of section 86. O. Reg. 618/74, s. 87.

**88.** A holder of a wholesale vendor's licence may sell at wholesale,

(*a*) a Schedule 1 or 5 pesticide only to a holder of,

(i) a wholesale vendor's licence,

(ii) a limited wholesale vendor's licence, or

(iii) a Class 1 retail vendor's licence;

(*b*) a Schedule 2 pesticide only to a holder of,

(i) a wholesale vendor's licence,

(ii) a limited wholesale vendor's licence,

(iii) a Class 1 retail vendor's licence, or

(iv) a Class 2 retail vendor's licence;

(*c*) a Schedule 3 pesticide only to a holder of,

(i) a wholesale vendor's licence,

(ii) a limited wholesale vendor's licence,

(iii) a Class 1 retail vendor's licence

(v) a Class 3 retail vendor's licence, and

(*d*) a Schedule 4 or 6 pesticide. O. Reg. 618/74, s. 88; O. Reg. 577/76, s. 46.

**89.** A holder of a limited wholesale vendor's licence may sell at wholesale only,

(*a*) Schedule 4 or 6 pesticides;

(*b*) Schedule 3 pesticides that are paints, stains, sealers or wood preservatives provided that no food is prepared, sold or stored on the same premises;

(*c*) Schedule 3 pesticides that are disinfectants, cleaners or bacteriacides;

(*d*) Schedule 2 or 3 pesticides for drill box treatments of corn seed if the pesticide is sold with the corn seed to be treated and the pesticide is in a dust formulation with no greater than twenty-five per cent concentration of lindane and the package contents do not exceed two ounces in weight; and

(*e*) Schedule 2 pesticides that are intended for use as bacteriacides in cutting oil, marine or aviation fuels. O. Reg. 618/74, s. 89; O. Reg. 577/76, s. 47.

RETAIL VENDOR'S LICENCE REQUIREMENTS

**90.** Every retail vendor's licence shall be displayed in a prominent place at the premises in respect of which the licence was issued. O. Reg. 618/74, s. 90.

**91.** Notwithstanding sections 92, 93 and 94, a holder of any class of retail vendor's licence may sell a pesticide which he is authorized to sell at retail to the holder of a permit issued by the Director for an extermination, the pesticide mentioned in the permit in accordance with any terms and conditions contained therein. O. Reg. 618/74, s. 91.

**92.** The holder of a Class 1 retail vendor's licence may sell at retail,

(*a*) a Schedule 1 pesticide only to a licensed exterminator authorized to use such pesticide;

(*b*) a Schedule 2 or 5 pesticide only to,

(i) a licensed exterminator authorized to use such pesticide,

(ii) an agriculturist, except a pesticide containing picloram, and

(iii) an area weed inspector designated

(*c*) a Schedule 3 pesticide only to,

(i) a licensed exterminator authorized to use that pesticide, and

(ii) a person exempt from subsection 1 of section 4 of the Act for an extermination by means of that pesticide; and

(*d*) a Schedule 4 or 6 pesticide. O. Reg. 618/74, s. 92; O. Reg. 577/76, s. 48.

**93.** A holder of a Class 2 retail vendor's licence may sell at retail,

(*a*) a Schedule 2 pesticide only to,

(i) a licensed exterminator authorized to use that pesticide,

(ii) an agriculturist, except a pesticide containing picloram, and

(iii) an area weed inspector designated under *The Weed Control Act*;

(*b*) a Schedule 3 pesticide only to,

(i) a licensed exterminator authorized to use that pesticide, and

(ii) a person exempt from subsection 1 of section 4 of the Act for an extermination by means of that pesticide; and

(*c*) a Schedule 4 or 6 pesticide. O. Reg. 618/74, s. 93; O. Reg. 577/76, s. 49.

**94.** A holder of a Class 3 retail vendor's licence may sell at retail a Schedule 3 or 6 pesticide only to,

(*a*) a licensed exterminator authorized to use a pesticide; and

(*b*) a person exempt from subsection 1 of section 4 of the Act for an extermination by means of that pesticide. O. Reg. 618/74, s. 94; O. Reg. 577/76, s. 50.

**95.** A person is exempt from requiring a retail vendor's licence to sell at retail,

(*a*) a Schedule 4 pesticide;

(*b*) a Schedule 3 or 6 pesticide that is a paint, stain, sealer or wood preservative provided that no food is prepared, sold or stored on the same premises;

(*c*) a Schedule 3 or 6 pesticide that is a

sold with the corn seed to be treated and the Schedule 2 or 3 pesticide is in a dust formulation with no greater than 25 per cent concentration of lindane and the package contents do not exceed four ounces in weight; and

(*c*) a Schedule 2 pesticide that is intended for use as a bacteriacide in cutting oil, marine or aviation fuels. O. Reg. 618/74, s. 95; O. Reg. 577/76, s. 51.

**96.**—(1) Subject to subsection 2, the following classes of persons are exempt from requiring a retail vendor's licence where their dealings in pesticides are confined to operations involving the application of pesticides in the course of their business:

(*a*) a licensed exterminator; and

(*b*) an area weed inspector designated under *The Weed Control Act* who, in accordance with his duties, sells or transfers a Schedule 2 or 3 pesticide, which is a herbicide, to any person who is authorized under the Act and this Regulation to use such a pesticide.

(2) Every person exempted under subsection 1 is subject to clause *a* of subsection 1 and subsections 2, 3 and 4 of section 97. O. Reg. 618/74, s. 96.

RECORDS

**97.**—(1) Every holder of a vendor's licence shall keep a record of each sale or transfer of a Schedule 1, 2 and 5 pesticide setting out,

(*a*) the name and address of the purchaser or transferee;

(*b*) the type and class of licence or permit to use, if any, held by the purchaser or transferee and the licence or permit number;

(*c*) a description of the pesticide sold or transferred, including the name, class, unit size and quantity of the pesticide.

(2) A record made under subsection 1 shall be kept by the holder of the vendor's licence for a period of three years or such longer period as the Director may require by written notice. O. Reg. 618/74, s. 97 (1, 2).

(3) Every vendor who receives a written request from the Director for any record kept under subsection 1 shall forward the record or a copy thereof



s. 52

(4) The vendor shall produce any record kept under subsection 1 to a provincial officer when requested by him and the provincial officer may remove such record, or any portion thereof, in order to make copies. O. Reg. 618/74, s. 97 (4).

GENERAL STORAGE

**98.** No person shall store any pesticide in such a manner that the pesticide is likely to come into contact with food or drink intended for human or animal consumption. O. Reg. 618/74, s. 98.

**99.** Every person responsible for a Schedule 1, 2 or 5 pesticide shall ensure that,

(*a*) any room in which the pesticide is stored is ventilated to the outside atmosphere;

(*b*) a placard is affixed and maintained on the outside of each door leading into the room in which the pesticide is stored bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible; and

(*c*) no person can enter the room in which the pesticide is stored without the express permission of the person responsible. O. Reg. 618/74, s. 99.

VENDOR STORAGE

**100.**—(1) Subject to subsections 2 and 3, every holder of a wholesale vendor's licence or limited wholesale vendor's licence who stores any Schedule 1, 2, 3, 4, 5 or 6 pesticide shall store the pesticide,

(*a*) in such manner that the pesticide is not likely to contaminate food or drink intended for human or animal consumption;

(*b*) in such a manner that the pesticide is not likely to impair the health or safety of any person;

(*c*) in an area that is maintained in a clean and orderly manner and with precautions taken sufficient to prevent the pesticide from contaminating any other pesticide stored in the same area, or the natural environment; and

(*d*) in an area that has a warning sign prominently displayed at the entrances thereof indicating the presence of a pesticide. O. Reg. 618/74, s. 100 (1); O. Reg. 577/76, s. 53 (1).

requirements mentioned in subsection 1, every holder of a wholesale vendor's licence or limited wholesale vendor's licence who stores any Schedule 1, 2 or 5 pesticide shall store the pesticide in an area,

(*a*) that has no floor drain that leads into or drains directly or indirectly into a storm sewer, sanitary sewer or watercourse; and

(*b*) near which adequate respiratory protection and adequate protective clothing are kept readily available by the licensee for emergency purposes. O. Reg. 618/74, s. 100 (2); O. Reg. 577/76, s. 53 (2).

(3) In addition to the requirements mentioned in subsections 1 and 2, every holder of a wholesale vendor's licence or limited wholesale vendor's licence who stores any Schedule 1 or 5 pesticide shall store the pesticide in a room or compartment that,

(*a*) is well ventilated to the outside atmosphere and used exclusively for the storage of pesticides; and

(*b*) has a fire resistance rating of not less than one hour except for all doors and doorframes which may have a fire resistance rating of not less than forty-five minutes. O. Reg. 618/74, s. 100 (3).

**101.** No vendor shall purchase, acquire or store a pesticide unless he is the holder of a vendor's licence authorizing him to sell the pesticide or a pesticide reformulated from it or is exempt from requiring a vendor's licence to sell the pesticide or a pesticide reformulated from it. O. Reg. 577/76, s. 54.

**102.**—(1) Subject to subsections 2 and 3, every holder of any class of retail vendor's licence who stores a Schedule 1, 2, 3 or 5 pesticide shall store the pesticide,

(*a*) in such a manner that the pesticide will not likely contaminate food or drink intended for human or animal consumption;

(*b*) in such a manner that the pesticide will not be likely to impair the health or safety of any person;

(*c*) in an area that has a warning sign prominently displayed at the entrances thereof indicating the presence of a pesticide and stating that the pesticides may be handled only by the licensee or his employees;

(*d*) in an area near which there is prominently displayed a list of emergency telephone numbers, including those of the local fire

(*e*) in an area that is maintained in a clean and orderly manner. O. Reg. 618/74, s. 102 (1).

(2) Subject to subsection 3, and in addition to the requirements mentioned in subsection 1, a holder of any class of retail vendor's licence who stores any Schedule 1, 2 or 5 pesticide shall store the pesticide in an area,

(*a*) that is well ventilated;

(*b*) that is not accessible to the public and which is locked when the licensee, or an employee of the licensee, is not present on the premises on which the pesticide is stored;

(*c*) in an area near which adequate respiratory protection and adequate protective clothing are kept readily available by the licensee for emergency purposes; and

(*d*) that has no floor drain that leads into or drains directly or indirectly into a storm sewer, sanitary sewer or watercourse. O. Reg 618/74, s. 102 (2); O. Reg. 577/76, s. 55 (1).

(3) In addition to the requirements mentioned in subsections 1 and 2, every holder of any class of retail vendor's licence who stores any Schedule 1 or 5 pesticide shall store the pesticide in an area that is used exclusively for the storage of pesticides. O. Reg. 618/74, s. 102 (3); O. Reg. 577/76, s. 55 (2).

VENDOR, FIRE DEPARTMENT NOTIFICATION

**103.** Every holder of,

(*a*) a wholesale or limited wholesale vendor's licence who stores for sale any pesticide; or

(*b*) a Class 1 or 2 retail vendor's licence who stores for sale any Schedule 1, 2 or 5 pesticide,

shall notify the local fire department having jurisdiction in the area in which such pesticides are stored of the presence of the pesticide on the premises in Form 11. O. Reg. 618/74, s. 103.

DISPLAY

**104.** Every holder of any class of retail vendor's licence who sells at retail any Schedule 1, 2, 3 or 5 pesticide shall,

The Forms, Schedules, and Tables referred to in the Regulation have not been reprinted here, but are available upon request. Ontario Regulation 618/74 has been amended by O.Reg. 577/76, 28/77, 183/77, 628/77. These amendments deal primarily with changes to the Schedules.

# A P P E N D I X  4

The Environmental Assessment Act, 1975

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# The Environmental Assessment Act, 1975

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Minister of the Environment

TORONTO
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# The Environmental Assessment Act, 1975

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

## PART I

### INTERPRETATION AND APPLICATION

**1.** In this Act, Interpretation

(*a*) "air" includes enclosed air;

(*b*) "Board" means the Environmental Assessment Board established under Part III;

(*c*) "environment" means,

(i) air, land or water,

(ii) plant and animal life, including man,

(iii) the social, economic and cultural conditions that influence the life of man or a community,

(iv) any building, structure, machine or other device or thing made by man,

(v) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of man, or

(vi) any part or combination of the foregoing and the interrelationships between any two or more of them,

in or of Ontario;



(*d*) "environmental assessment", when used in relation to an undertaking, means an environmental assessment submitted pursuant to subsection 1 of section 5;

(*e*) "land" includes enclosed land, land covered by water and subsoil;

(*f*) "Minister" means the Minister of the Environment;

(*g*) "Ministry" means the Ministry of the Environment;

(*h*) "municipality" means the corporation of a county, metropolitan area, regional area, district area, city, town, village, township or improvement district and includes a local board as defined in *The Municipal Affairs Act* and a board, commission or other local authority exercising any power with respect to municipal affairs or purposes, including school purposes, in an unorganized township or unsurveyed territory; R.S.O. 1970, c. 118

(*i*) "person" includes a municipality, Her Majesty in right of Ontario, a Crown agency within the meaning of *The Crown Agency Act*, a public body, a partnership, an unincorporated joint venture and an unincorporated association; R.S.O. 1970, c. 100

(*j*) "proceed" includes "carry on";

(*k*) "proponent" means a person who,

(i) carries out or proposes to carry out an undertaking, or

(ii) is the owner or person having charge, management or control of an undertaking;

(*l*) "provincial officer" means a person designated by the Minister as a provincial officer under Part IV;

(*m*) "public body" means a body other than a municipality that is defined as a public body by the regulations;

(*n*) "regulations" means the regulations made under this Act;

(*o*) "undertaking" means,

(i) an enterprise or activity or a proposal, plan or program in respect of an enterprise or activity by or on behalf of Her Majesty in right of Ontario, by a public body or public bodies or by a municipality or municipalities, or

(ii) a major commercial or business enterprise or activity or a proposal, plan or program in respect of a major commercial or business enterprise or activity of a person or persons other than a person or persons referred to in subclause i that is designated by the regulations;

(*p*) "water" means surface water and ground water, or either of them.

Purpose of Act

**2.** The purpose of this Act is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment.

Application of Act

**3.** This Act applies to,

(*a*) enterprises or activities or proposals, plans or programs in respect of enterprises or activities by or on behalf of Her Majesty in right of Ontario or by a public body or public bodies or by a municipality or municipalities on and after the day this Act comes into force;

(*b*) only on and after a day to be named in a proclamation of the Lieutenant Governor, major commercial or business enterprises or activities or proposals, plans or programs in respect of major commercial or business enterprises or activities of a person or persons other than a person referred to in clause *a*, designated by the regulations.

The Crown

**4.** This Act binds the Crown.



## PART II

### ACCEPTANCE, AMENDMENT, APPROVAL

Submission of environmental assessment

**5.**—(1) The proponent of an undertaking to which this Act applies shall submit to the Minister an environmental assessment of the undertaking and shall not proceed with the undertaking until,

(*a*) the environmental assessment has been accepted by the Minister; and

(*b*) the Minister has given his approval to proceed with the undertaking.

Exception

(2) Subsection 1 does not prohibit a feasibility study, including research, or any action necessary to comply with this Act before the approval of the Minister is given to proceed with an undertaking.

Content of environmental assessment

(3) An environmental assessment submitted to the Minister pursuant to subsection 1 shall consist of,

(*a*) a description of the purpose of the undertaking;

(*b*) a description of and a statement of the rationale for,

(i) the undertaking,

(ii) the alternative methods of carrying out the undertaking, and

(iii) the alternatives to the undertaking;

(*c*) a description of,

(i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,

(ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and

(iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment,

by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

(*d*) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking.

Where licences, etc., not to be issued

**6.**—(1) Where a proponent is required under this Act to submit to the Minister an environmental assessment of an undertaking,

(*a*) a licence, permit, approval, permission or consent that is required under any statute, regulation, by-law or other requirement of the Province of Ontario, an agency thereof, a municipality or a regulatory authority, in order to proceed with the undertaking shall not be issued or granted; and

(*b*) if it is intended that the Province of Ontario or any agency thereof will provide a loan, a guarantee of repayment of a loan, a grant or a subsidy with respect to the undertaking, the loan, guarantee, grant or subsidy shall not be approved, made or given,

unless,

(*c*) the environmental assessment has been submitted to and accepted by the Minister; and

(*d*) the Minister has given approval to proceed with the undertaking.

Exception

(2) Subsection 1 does not apply to,

(*a*) a licence, permit, approval, permission or consent;

(*b*) a loan, guarantee, grant or subsidy,

in relation to a feasibility study, including research, or for any action necessary to comply with this Act before the approval of the Minister is given to proceed with the undertaking.

Preparation of review and notice

**7.**—(1) Where an environmental assessment of an undertaking is submitted by a proponent to the Minister, the Minister,

(*a*) shall cause a review of the assessment to be prepared; and



(*b*) shall give notice of,

(i) the receipt of the assessment,

(ii) the completion of the preparation of the review,

(iii) the place or places where the assessment and review may be inspected, and

(iv) such other matters as the Minister considers necessary or advisable,

to the proponent, the clerk of each municipality in which the undertaking is being or will be carried out and, in such manner as the Minister considers suitable, to the public and to such other persons as the Minister considers necessary or advisable.

Inspection of environmental assessment

(2) Any person may inspect an environmental assessment of an undertaking and the review thereof in accordance with the terms of the notice referred to in subsection 1 and may, within thirty days of the giving of the notice or within such longer period as may be stated in the notice,

(*a*) make written submissions to the Minister with respect to the undertaking, the environmental assessment and the review thereof; and

(*b*) by written notice to the Minister, require a hearing by the Board with respect to the undertaking, the environmental assessment and the review thereof.

Withdrawal of environmental assessment

(3) A proponent may withdraw or amend an environmental assessment at any time prior to the day on which notice is given under subsection 1 and thereafter may withdraw or amend an environmental assessment subject to such terms and conditions as the Minister may by order impose.

Matters to be considered by the Minister

**8.** The Minister, in determining whether to accept or to amend and accept an environmental assessment shall consider the purpose of this Act, the environmental assessment submitted to him, the review thereof, the written submissions, if any, made with respect thereto, any reports required by and submitted to him, and any further review that the Minister has caused to be prepared.

Notice of acceptance of environmental assessment

**9.** Where a hearing is not required,

(*a*) pursuant to clause *a* of subsection 2 of section 12; or

(*b*) pursuant to clause *b* of subsection 2 of section 12 after receipt of a notice pursuant to clause *b* of subsection 2 of section 7,

and the Minister, after considering the matters set out in section 8, is of the opinion that the environmental assessment is satisfactory to enable a decision to be made as to whether approval to proceed with the undertaking with respect to which the environmental assessment is submitted should or should not be given or should be given subject to terms and conditions, the Minister shall accept the assessment and give notice thereof to the proponent and in such manner as the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7.

Notice of proposal to amend environmental assessment

**10.**—(1) Where a hearing is not required,

(*a*) pursuant to clause *a* of subsection 2 of section 12; or

(*b*) pursuant to clause *b* of subsection 2 of section 12 after receipt of a notice pursuant to clause *b* of subsection 2 of section 7,

and the Minister, after considering the matters set out in section 8, is of the opinion that the environmental assessment does not comply with this Act or the regulations, is inconclusive or is otherwise unsatisfactory to enable a decision to be made as to whether approval to proceed with the undertaking with respect to which the environmental assessment is submitted should or should not be given or should be given subject to terms and conditions, the Minister shall give notice to the proponent and in such manner as the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7 that the Minister proposes to amend the environmental assessment, together with written reasons therefor including particulars of the amendments that the Minister proposes to make to the environmental assessment and, after considering any further written submissions of the proponent and of any such person, the Minister, where a hearing is not required pursuant to clause *a* of subsection 2 of section 12 or to clause *b* of subsection 2 of section 12 after receipt of a notice pursuant to subsection 1 of section 12, shall accept or amend and accept the environmental assessment.

Notice of amendment and acceptance of environmental assessment

(2) The Minister shall give notice of the acceptance or the amendment and acceptance of the environmental assessment pursuant to subsection 1 to the proponent, and in such manner as the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7, and where the assessment is amended a copy of the assessment as amended and accepted together with written reasons therefor, to the proponent.



Minister may order research, etc., and reports

**11.**—(1) Where, before accepting an environmental assessment, the Minister is of the opinion that the environmental assessment as submitted does not comply with this Act or the regulations, is inconclusive or is otherwise unsatisfactory to enable a decision to be made as to whether approval to proceed with the undertaking with respect to which the environmental assessment is submitted should or should not be given or should be given subject to terms and conditions, the Minister shall give notice to the proponent that he proposes, by order, to require the proponent to carry out such research, investigations, studies and monitoring programs related to the undertaking in respect of which the environmental assessment is submitted as are mentioned in the notice, together with written reasons therefor.

Written submissions

(2) The Minister, after considering any written submissions of the proponent made within fifteen days of the giving of the notice or within such longer period as may be stated in the notice, may by order require the proponent to carry out such research, investigations, studies and monitoring programs related to the undertaking in respect of which the environmental assessment is submitted and to submit such reports thereon as the Minister considers necessary.

Notice of order

(3) The Minister shall, in such manner as the Minister considers suitable, give notice of the order to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7.

Reports to be incorporated in environmental assessment

(4) Upon submission of the reports to the Minister they shall be incorporated as part of the environmental assessment and the review thereof that the Minister caused to be prepared may be revised accordingly.

Notice

**12.**—(1) A notice that the Minister proposes to amend an environmental assessment shall state that the proponent or any person who has made a written submission to the Minister pursuant to subsection 2 of section 7 may, by written notice delivered to the Minister within fifteen days after the giving of the notice of proposal to amend, require a hearing by the Board and the proponent or the person may so require such a hearing.

(2) The Minister, by notice in writing, Hearing

(a) may, where he considers it advisable; or

(b) shall, upon receipt of a notice requiring a hearing pursuant to subsection 1 or pursuant to subsection 2 of section 7, unless in his absolute discretion he considers that the requirement is frivolous or vexatious or that a hearing is unnecessary or may cause undue delay,

require the Board to hold a hearing with respect to,

(c) the acceptance or amendment and acceptance of the environmental assessment;

(d) whether approval to proceed with the undertaking in respect of which the environmental assessment was submitted should or should not be given; and

(e) whether the approval mentioned in clause *d* should be given subject to terms and conditions and, if so, the provisions of such terms and conditions.

(3) Upon receipt from the Minister of a notice pursuant Idem to subsection 2, section 13 or clause *c* of subsection 1 of section 24, the Board shall appoint a time for the hearing, shall give reasonable notice thereof to the proponent and to the Minister and in such manner as the Minister may direct, notice to the public, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7 and to such other persons as the Minister considers necessary or advisable, and such other notice as the Board considers proper, and shall hold the hearing and decide the matters referred to it in the notice of the Minister.

(4) The parties to any proceedings before the Board in Parties respect of the undertaking are,

(a) the proponent;

(b) any person, other than the Minister, who has required the hearing; and

(c) such other persons as,

(i) the Board, in its opinion, specifies have an interest in the proceedings, and

(ii) the Board, having regard to the purpose of this Act, may specify.



Other hearings

**13.** Where an environmental assessment has been accepted or amended and accepted, and no hearing has been held pursuant to section 12, the proponent or a person who has made a written submission pursuant to subsection 2 of section 7 may, by written notice delivered to the Minister within fifteen days after the giving of the notice mentioned in section 9 or the notice mentioned in subsection 2 of section 10, require a hearing by the Board with respect to,

(a) whether approval to proceed with the undertaking in respect of which the environmental assessment was submitted should or should not be given; and

(b) whether the approval mentioned in clause *a* should be given subject to terms and conditions and, if so, the provisions of such terms and conditions, and

the Minister, by notice in writing,

(c) may, where he considers it advisable; or

(d) shall, upon receipt of any such notice requiring a hearing, unless in his absolute discretion he considers that the requirement is frivolous or vexatious or that a hearing is unnecessary or may cause undue delay,

require the Board to hold a hearing.

Approval to proceed

**14.**—(1) Where the Minister has accepted an environmental assessment of an undertaking, the Minister may, with the approval of the Lieutenant Governor in Council or of such Ministers of the Crown as the Lieutenant Governor in Council may designate,

(a) give approval to proceed with the undertaking;

(b) give approval to proceed with the undertaking subject to such terms and conditions as the Minister considers necessary to carry out the purpose of this Act and in particular requiring or specifying,

(i) the methods and phasing of the carrying out of the undertaking,

(ii) the works or actions to prevent, mitigate or remedy effects of the undertaking on the environment,

(iii) such research, investigations, studies and monitoring programs related to the undertaking, and reports thereof, as he considers necessary,

(iv) such changes in the undertaking as he considers necessary,

(v) that the proponent enter into one or more agreements related to the undertaking with any person with respect to such matters as the Minister considers necessary,

(vi) that the proponent comply with all or any of the provisions of the environmental assessment as accepted by the Minister that may be incorporated by reference in the approval,

(vii) the period of time during which the undertaking, or any part thereof, shall be commenced or carried out; or

(*c*) refuse to give approval to proceed with the undertaking.

Matters to be considered by the Minister

(2) In determining whether to give approval, give approval subject to terms and conditions or refuse to give approval to proceed with an undertaking in accordance with subsection 1, the Minister shall consider,

(*a*) the purpose of this Act;

(*b*) the environmental assessment of the undertaking as accepted by the Minister;

(*c*) the submissions, if any, made to the Minister with respect to the environmental assessment.

Notice of approval

(3) The Minister shall give notice, together with written reasons therefor, of his approval, approval subject to terms and conditions or refusal to give approval to proceed with the undertaking to the proponent, and in such manner as



the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7 and to such other persons as the Minister considers necessary or advisable.

Proceedings under other Acts

1971, c. 86
R.S.O. 1970, c. 332

**15.** An approval by the Minister pursuant to this Act to proceed with an undertaking does not preclude any proceeding in relation to a contravention of any provision of *The Environmental Protection Act, 1971*, *The Ontario Water Resources Act* or the regulations made under either of those Acts.

Effect of approval

**16.**—(1) No person shall proceed with an undertaking contrary to any term or condition imposed by the Minister in giving approval to proceed with the undertaking.

Idem

(2) No person shall give, make, issue, interpret or apply any licence, permit, approval, permission, consent, loan, guarantee of repayment of a loan, grant or subsidy that is required in order to proceed with an undertaking contrary to any term or condition imposed by the Minister in giving approval to proceed with the undertaking.

Where proponent proposes to change undertaking

**17.** Where a proponent of an undertaking proposes to make a change in the undertaking,

(*a*) before the Minister has given approval to proceed with the undertaking, that does not conform to the environmental assessment of the undertaking as accepted by the Minister; or

(*b*) after the Minister has given approval to proceed with the undertaking, that does not conform to any term or condition imposed upon the approval to proceed with the undertaking,

this Act applies to the proposal to make the change in the undertaking as though the proposed change were itself an undertaking to which this Act applies.

## PART III

### ENVIRONMENTAL ASSESSMENT BOARD

Composition of Board

**18.**—(1) A board to be known as the Environmental Assessment Board is established and shall be composed of not fewer than five persons who shall be appointed by the Lieutenant Governor in Council and shall not be employed in the public service of Ontario in the employ of any ministry.

Chairman and vice-chairman

(2) The Lieutenant Governor in Council shall designate a chairman and one or more vice-chairmen from among the members of the Board.

Acting chairman

(3) In the case of the absence or inability to act of the chairman or of there being a vacancy in the office of the chairman, a vice-chairman shall act as and have all the powers of the chairman and, in the absence of the chairman and vice-chairman or vice-chairmen from any meeting of the Board, the members of the Board present at the meeting shall appoint an acting chairman who shall act as and have all the powers of the chairman during the meeting.

Term of members

(4) The members of the Board, other than the chairman, shall be appointed for a term of one, two or three years so that as nearly as possible one-third of the members, other than the chairman, shall retire each year.

Term of chairman

(5) The chairman of the Board shall be appointed to hold office during pleasure.

Vacancies

(6) Every vacancy on the Board caused by the death, resignation or incapacity of a member may be filled by the appointment by the Lieutenant Governor in Council of a person to hold office for the remainder of the term of such member.

Quorum

(7) Three members of the Board constitute a quorum.

Employees

(8) Such employees as are necessary to carry out the duties of the Board shall be appointed under *The Public Service Act*. R.S.O. 1970, c. 386

Expert assistance

(9) The Board may appoint from time to time one or more persons having technical or special knowledge of any matter to inquire into and report to the Board and to assist the Board in any capacity in respect of any matter before it.

Remuneration

(10) The members of the Board shall be paid such remuneration and expenses as are determined by the Lieutenant Governor in Council.

Exercise of powers

(11) The powers of the Board shall be exercised by resolution and the Board may pass resolutions governing the calling of and the proceedings at meetings and specifying the powers and duties of employees of the Board and generally dealing with the carrying out of its function.

Practice and procedure

(12) The Board may determine its own practice and procedure in relation to hearings and may, subject to section 28 of *The Statutory Powers Procedure Act, 1971* and 1971, c. 47





the approval of the Lieutenant Governor in Council, make rules governing such practice and procedure and the exercise of its powers in relation thereto and prescribe such forms as are considered advisable.

Conduct of hearings by less than quorum

(13) The chairman may, in writing, authorize less than a quorum of the Board to conduct a hearing and the member or members conducting the hearing shall have all the powers of the Board for the purposes of the hearing.

Only members at hearing to participate in decision

(14) No member of the Board shall participate in a decision of the Board pursuant to a hearing unless he was present throughout the hearing and heard the evidence and argument of the parties and, except with the consent of the parties, no decision of the Board shall be given unless all members so present participate in the decision.

Board may appoint class representative

(15) For the purpose of proceedings before the Board, the Board may appoint from among a class of parties to the proceedings having, in the opinion of the Board, a common interest, a person to represent that class in the proceedings, but any other member of the class for which such appointment was made may, with the consent of the Board, take part in the proceedings notwithstanding the appointment.

Minister entitled to take part in proceedings

(16) The Minister is entitled, by counsel or otherwise, to take part in proceedings before the Board.

Giving of decision

(17) The Board shall give a copy of its decision together with written reasons therefor to the Minister, to the parties, or where an appointment has been made pursuant to subsection 15, to the appointee on behalf of the class, and to such other persons as have made written submissions pursuant to subsection 2 of section 7 and to the clerk of each municipality in which the undertaking is being or will be carried out.

Decisions, etc., of Board not subject to review

(18) No decision of the Board is effective until it becomes final pursuant to section 24.

When decision is effective

(19) No decision, order, direction, resolution or ruling of the Board shall be questioned or reviewed in any court and no proceeding shall be taken in any court by way of injunction, declaratory judgment, *certiorari*, *mandamus*, prohibition, application for judicial review, *quo warranto*, or otherwise to question, review, prohibit or restrain the Board or any of its decisions, orders, directions, resolutions or rulings.

Application of 1971, c. 47

(20) Except as otherwise provided in this Act, *The Statutory Powers Procedure Act, 1971* applies to the proceedings of the Board.

Hearings to be public, exceptions

**19.** A hearing conducted by the Board or a member or members of the Board shall be open to the public except where the Board or the member or members of the Board conducting the hearing is or are of the opinion that matters may be disclosed at the hearing that are of such a nature, having regard to the circumstances, that the desirability of avoiding disclosure thereof in the interest of any person affected or in the public interest outweighs the desirability of adhering to the principle that hearings be open to the public, in which case, the Board or the member or members of the Board conducting the hearing may hold the hearing concerning any such matters *in camera*.

Effect of decision of Board

**20.** Any decision of the Board that becomes final pursuant to section 24 shall be deemed to be the decision of the Minister or of the Minister with the approval required by section 14.

Testimony by member, employee or appointee of Board

**21.** No member, employee or appointee of the Board shall be required to give testimony in any proceeding with regard to information obtained by him in the discharge of his duties as a member, employee or appointee of the Board.

Hearings under R.S.O. 1970, c. 332

1971, c. 86

**22.** Where the Environmental Hearing Board, established under *The Ontario Water Resources Act*, proposed to hold or commenced but did not complete a public hearing or did not report thereon under *The Ontario Water Resources Act* or *The Environmental Protection Act, 1971*, immediately before this section came into force, the hearing shall be held or continued or the report may be made by the Environmental Assessment Board or, where it is necessary or advisable in the opinion of the chairman of the Environmental Assessment Board, the Environmental Assessment Board may hold a fresh hearing and any action or notice taken or given by the Environmental Hearing Board shall be deemed to have been taken or given by the Environmental Assessment Board.

Inspection of premises

**23.** For purposes relevant to the subject-matter of a hearing, the Board, its employees and appointees may enter and inspect any land or premises other than a dwelling at any reasonable time.

Variation or rescission of decisions

**24.**—(1) Within twenty-eight days after receipt by the Minister of a decision of the Board on any matter referred to it by notice of the Minister pursuant to subsection 2 of section 12 or section 13 or made pursuant to clause *c*, or within such longer period as may be determined by the





Minister within such twenty-eight day period, the Minister, with the approval of the Lieutenant Governor in Council or such Ministers of the Crown as the Lieutenant Governor in Council may designate, may,

(*a*) vary the whole or any part of the decision;

(*b*) substitute for the decision of the Board, such decision as he considers appropriate; or

(*c*) by notice to the Board require the Board to hold a new hearing of the whole or any part of the matter referred to the Board by the notice of the Minister and reconsider its decision.

Idem

(2) Subject to subsection 3, a decision of the Board is final after the expiration of the period or periods mentioned in subsection 1 unless, pursuant to subsection 1, the decision is varied or a decision is substituted for the decision of the Board or a new hearing is required.

Idem

(3) A decision of the Board that has been varied pursuant to clause *a* or a decision that has been substituted for the decision of the Board pursuant to clause *b* of subsection 1, is final.

Idem

(4) The Minister shall give notice, together with written reasons therefor, of any variation, substitution or requirement of a new hearing pursuant to subsection 1, to every person entitled to receive a copy of the decision of the Board pursuant to subsection 17 of section 18.

## PART IV

### PROVINCIAL OFFICERS

Designation of provincial officers

**25.**—(1) The Minister may designate in writing one or more employees of the Ministry or other persons as provincial officers for the purposes of any section or Part of this Act or any regulation or section of any regulation made under this Act that is referred to in the designation and in a designation may limit the authority of a provincial officer in such manner as the Minister considers necessary or advisable.

Certificate of designation

(2) The Minister shall issue to every provincial officer a certificate of his designation and every provincial officer, in the execution of his duties under this Act and the regulations, shall produce his certificate of designation upon request.

Powers of provincial officer

**26.**—(1) Where a provincial officer has reasonable grounds for believing that it is necessary, for the purpose of the administration of this Act and the regulations, he may, upon production of his certificate of designation, enter at any reasonable time any building, other than a dwelling, or any structure, machine, vehicle, land, water or air and make or require to be made such surveys, examinations, investigations, tests and inquiries, as he considers necessary for such purpose, including examinations of books, records and documents and may make, take and remove or may require to be made, taken or removed samples, copies or extracts.

Order authorizing

(2) Where a provincial judge is satisfied, upon an *ex parte* application by a provincial officer, that there is reasonable ground for believing that it is necessary to enter any building, including a dwelling, structure, machine, vehicle, land, water or air for the administration of this Act or the regulations, the provincial judge may issue an order authorizing a provincial officer to enter therein or thereon and to make or require to be made such surveys, examinations, investigations, tests and inquiries and to take the other actions mentioned in subsection 1 but every such entry, survey, examination, investigation, test, inquiry and other such action shall be made or taken between sunrise and sunset unless the provincial judge authorizes the provincial officer, by the order, to so act at another time.

Obstruction of provincial officer

**27.** No person shall hinder or obstruct a provincial officer in the lawful performance of his duties or knowingly furnish a provincial officer with false information or refuse to furnish him with information required for the purposes of this Act and the regulations.

Matters confidential

**28.**—(1) Every provincial officer shall preserve secrecy in respect of all matters that come to his knowledge in the course of any survey, examination, test or inquiry under this Act or the regulations and shall not communicate any such matter to any person except,

(*a*) as may be required in connection with the administration of this Act and the regulations or any proceedings under this Act or the regulations;

(*b*) to his counsel; or

(*c*) with the consent of the person to whom the information relates.

Idem

(2) Except in a proceeding under this Act or the regulations, no provincial officer shall be required to give testimony in any civil suit or proceeding with regard to information obtained by him in the course of any survey, examination, test or inquiry under this Act or the regulations.



## PART V

### ADMINISTRATION

Application to Divisional Court

**29.** The Minister, in addition to any other remedy and to any penalty imposed by law, may apply to the Divisional Court for an order,

(*a*) enjoining any act to proceed with an undertaking contrary to this Act; or

(*b*) invalidating any licence, permit, approval, permission or consent issued or granted contrary to subsection 1 of section 6,

and the court may make the order on such terms and conditions as the court considers proper.

Exemption

**30.** Where the Minister is of the opinion that it is in the public interest, having regard to the purpose of this Act and weighing the same against the injury, damage or interference that might be caused to any person or property by the application of this Act to any undertaking, the Minister, with approval of the Lieutenant Governor in Council or of such Ministers of the Crown as the Lieutenant Governor in Council may designate, may by order,

(*a*) exempt the undertaking or the proponent of the undertaking from the application of this Act or the regulations or any matter or matters provided for in this Act or the regulations subject to such terms and conditions as the Minister may impose;

(*b*) suspend or revoke an exemption referred to in clause *a*;

(*c*) alter or revoke any term or condition of an exemption referred to in clause *a*.

Disclosure

**31.** Notwithstanding any other provision of this Act, where the Minister is of the opinion that compliance with any provision of this Act is causing, will cause or will likely cause the disclosure of matters that are of such a nature that the desirability of avoiding disclosure thereof in the interest of any person affected or in the public interest outweighs the desirability of disclosing such matters to the public, the Minister may make such order for the protection of such person or the public interest as he considers necessary or advisable.

Record

**32.**—(1) The Minister shall cause to be maintained a record of every undertaking in respect of which an environmental assessment has been submitted under this Act that, subject to any order of the Minister pursuant to section 31, shall consist of the environmental assessment, the review of the environmental assessment that the Minister caused to be prepared, any written submissions, any decision of the Board or the Minister together with written reasons therefor, if any, made under this Act, any notice under section 9, subsection 2 of section 10, subsection 3 of section 14, subsection 4 of section 24 and section 39 and any order of the Minister pursuant to this Act together with the written reasons, if any, therefor.

Inspection

(2) The Minister shall, upon the request of any person, make available for the inspection of such person any record referred to in subsection 1 including any document forming part of the record as soon as practicable after issuance or receipt of the document.

Powers and duties of Minister

**33.** The Minister, for the purposes of the administration and enforcement of this Act and the regulations may,

(*a*) conduct research with respect to the environment or environmental assessments;

(*b*) conduct studies of the quality of the environment;

(*c*) conduct studies of environmental planning or environmental assessments designed to lead to the wise use of the environment by man;

(*d*) convene conferences and conduct seminars and educational and training programs with respect to the environment or environmental assessments;

(*e*) gather, publish and disseminate information with respect to the environment or environmental assessments;

(*f*) make grants and loans for research or the training of persons with respect to the environment or environmental assessments in such amounts and upon such terms and conditions as the Minister, subject to the approval of the Lieutenant Governor in Council, may determine;

(*g*) appoint committees to perform such advisory functions as the Minister considers advisable;

(*h*) make such investigations, surveys, examinations, tests and other arrangements as he considers necessary; and



(*i*) with the approval of the Lieutenant Governor in Council, enter into an agreement with any government or person with respect to the environment or environmental assessments.

Protection from personal liability

**34.**—(1) Except in the case of an application for judicial review or an action or proceeding that is specifically provided for with respect to a person referred to in this subsection in any Act or in a regulation under this or any other Act, no action or other proceeding for damages or otherwise lies or shall be instituted against an employee of the Ministry, a member of the Board or a Crown employee within the meaning of *The Public Service Act* who is a provincial officer or is acting under the direction of an employee of the Ministry, or such member or provincial officer, for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any such duty or authority.

R.S.O. 1970, c. 386

Crown not relieved of liability

(2) Subsection 1 does not, by reason of subsections 2 and 4 of section 5 of *The Proceedings Against the Crown Act*, relieve the Crown of liability in respect of a tort committed by an agent or servant of the Crown to which it would otherwise be subject and the Crown is liable under that Act for any such tort in a like manner as if subsection 1 had not been enacted.

R.S.O. 1970, c. 365

Hearings under other Acts

**35.** Where a proponent is required under this Act not to proceed with an undertaking until an environmental assessment of the undertaking has been accepted by the Minister and a public hearing is required or permitted under *The Environmental Protection Act, 1971* or *The Ontario Water Resources Act* other than by the Environmental Appeal Board or the Ontario Municipal Board with respect to the undertaking, the Minister shall order,

1971, c. 86

R.S.O. 1970, c. 332

(*a*) that the public hearing under such other Act may be proceeded with and that this Act or the regulations or any matter or matters provided for in this Act or the regulations that is specified in the order does not apply to the undertaking or proponent; or

(*b*) that this Act applies to the undertaking and proponent and the public hearing under such other Act shall be deemed not to be required or permitted.

False information

**36.** No person shall knowingly give false information in any application, return or statement made to the Minister, the Board, an employee or appointee of the

Board, a provincial officer or any employee of the Ministry in respect of any matter under this Act or the regulations.

Certificates, etc., as evidence

**37.** In any prosecution, proceeding or hearing under this Act or the regulations, the production of,

(*a*) a certificate or report of an analyst in the employ of the Crown in right of Ontario designated by the Minister as to the analysis, ingredients, quality, quantity or temperature of any material, whether solid, liquid or gas or any combination of them; or

(*b*) any document under this Act purporting to be signed by the Minister or by or for the Board, or any certified copy thereof,

is *prima facie* evidence of the facts stated therein and of the authority of the person making the document without any proof of appointment or signature.

Service

**38.**—(1) Any notice, order, approval or other document under this Act or the regulations is sufficiently given or served if delivered personally or sent by registered mail addressed to the person to whom delivery or service is to be made at the latest address appearing on the records of the Ministry.

Notice to clerk of municipality

(2) A notice,

(*a*) given by the Minister pursuant to section 9, section 10 or subsection 3 of section 14;

(*b*) given by the Board pursuant to subsection 3 of section 12; or

(*c*) of the order of the Minister pursuant to section 11,

shall be given to the clerk of each municipality in which the undertaking is being or will be carried out.

Idem

(3) Where notice is given or service is made by registered mail, the giving or service shall be deemed to be made on the seventh day after the day of mailing unless the person to whom notice is given or on whom service is being made establishes that he did not, acting in good faith, through absence, accident, illness or other cause beyond his control receive the notice, order, approval or other document until a later date.



Public notice

(4) Where the Minister or the Board is of the opinion that because the persons who are to be given any notice or document under this Act are so numerous, or for any other reason it is impracticable to give the notice or document to all or any of the persons individually, the Minister or the Board, as the case may be, may instead of doing so, cause the notice or reasonable notice of the contents of the document to be given to the persons by public advertisement or otherwise as the Minister or the Board may direct, and the date on which such notice or reasonable notice of the contents of the document is first published or otherwise given as directed, shall be deemed to be the date on which the notice or document is given.

Inspection of documents

(5) The making available by the Minister of a copy or reproduction made by any means of a document is compliance with the provisions of this Act authorizing the inspection of the document.

Destruction of certain documents

(6) Notwithstanding any provision of this Act, a document may be destroyed by or under the authority of the Minister when it has been completely recorded or copied and the recording or copy is retained for the purpose of inspection under this section.

Where notice to be given to Minister

**39.** Where a proponent of an undertaking in respect of which an environmental assessment has been accepted by the Minister and for which approval to proceed has been given by the Minister receives notice of any fact, situation, event, order, proceeding or application the result of which or compliance with which has affected, affects or may affect the ability of the proponent to proceed with the undertaking in accordance with any term or condition to which the approval of the Minister to proceed with the undertaking is subject, the proponent shall forthwith give notice thereof to the Minister.

Offence

**40.** Every person, whether as principal or agent, or an employee of either of them, who contravenes any provision of this Act or the regulations or fails to comply with an order or a term or condition of an approval issued or given under this Act is guilty of an offence and on summary conviction is liable on a first conviction to a fine of not more than $5,000 and on a subsequent conviction to a fine of not more than $10,000 for every day or part thereof upon which the offence occurs or continues.

## PART VI

### REGULATIONS

Regulations

**41.** The Lieutenant Governor in Council may make regulations,

(*a*) defining any enterprise or activity as a major commercial or business enterprise or activity;

(*b*) defining enterprises or activities as classes of major commercial or business enterprises or activities;

(*c*) defining any body other than a municipality as a public body;

(*d*) designating any major commercial or business enterprise or activity or class of major commercial or business enterprises or activities as an undertaking or class of undertakings to which this Act applies;

(*e*) designating any proposal, plan or program or any class of proposals, plans or programs in respect of any major commercial or business enterprise or activity or any class of major commercial or business enterprises or activities as an undertaking or class of undertakings to which this Act applies;

(*f*) exempting any person, class of persons, undertaking or class of undertakings from the provisions of this Act, the regulations or any section or part of a section thereof and designating any enterprise or activity or class of enterprises or activities or any proposal, plan or program or any class of proposals, plans or programs in respect of any of them by or on behalf of Her Majesty in right of Ontario, by a public body or public bodies or by a municipality or municipalities as an undertaking or class of undertakings to which this Act applies notwithstanding any exemption under this clause;

(*g*) prescribing additional information that shall be contained in environmental assessments submitted to the Minister;

(*h*) prescribing forms for the purposes of this Act and providing for their use.

Class of undertakings

**42.** A class of undertakings under this Act or the regulations may be defined with respect to any attribute, quality or characteristic or combination thereof and may be defined to include any number of undertakings under one ownership or more than one ownership and whether or not of the same type or with the same attributes, qualities or characteristics.



Scope of regulations

**43.** Any regulation may be general or particular in its application, may be limited as to time or place or both and may exclude any place from the application of the regulation.

Adoption of codes in regulations

**44.** Any regulation may adopt by reference, in whole or in part, with such changes as the Lieutenant Governor in Council considers necessary, any code, formula, standard or procedure, and may require compliance with any code, standard or procedure so adopted.

Application of regulations

**45.**—(1) A regulation is not effective with respect to an enterprise or activity that is commenced before the regulation comes into force.

Idem

(2) Notwithstanding subsection 1, a regulation is effective with respect to,

(*a*) any major commercial or business enterprise or activity that is commenced after the coming into force of this Act and that is being carried on or is not completed when the regulation comes into force;

(*b*) a significant change made in any major commercial or business enterprise or activity after the coming into force of this Act and that is being carried on or is not completed before the regulation comes into force; or

(*c*) any proposal, plan or program in respect of any major commercial or business enterprise or activity or any class of major commercial or business enterprises or activities proposed or made before the coming into force of the regulation whether the proposal, plan or program is proposed or made before or after the coming into force of this Act.

Idem

(3) Notwithstanding subsection 1, a regulation made under clause *f* of section 41 is effective whether the enterprise or activity, or class of enterprises or activities, or proposal, plan or program or class of proposals, plans or programs in respect of any of them is commenced, carried on, made or proposed before or after the coming into force of this Act.

*1st Reading*

March 24th, 1975

*2nd Reading*

July 2nd, 1975

*3rd Reading*

July 14th, 1975

THE HON. W. NEWMAN
Minister of the Environment

PART VII

MISCELLANEOUS

Commencement

**46.** This Act comes into force on a day to be named by proclamation of the Lieutenant Governor.

Short title

**47.** This Act may be cited as *The Environmental Assessment Act, 1975*.

# A. The Environmental Assessment Act, 1975

## 1. Introduction

This appendix of the submission to The Royal Commission on Northern Environment will provide an overview of The Environmental Assessment Act, 1975, beginning with a discussion of the need for environmental assessment and the purpose of the Act. Secondly, there will be a discussion of the process, the document and the review procedure, including the opportunities for public involvement. Finally there is a section on the projects affected by the Act.

## 2. Purpose

The history of most environmental protection organizations, indicates invariably that the initial focus of the organization has been on the abatement of existing pollution. But abatement is essentially an "after-the-fact" strategy prompted by an increased awareness of ecological relationships and a growing recognition that contaminants and effluents, which were once acceptable can no longer be tolerated.

While abatement programs can play an important role in improving environmental conditions, it is apparent that an after-the-fact approach is not the best way to achieve desirable environmental quality. For example, while it may be possible to lower the air or water pollution concentrations associated with

a given plant, it still may be impossible to meet standards if the factory was located in an environmentally unacceptable site in the first place.

The purpose of The Environmental Assessment Act therefore is to establish a planning process in Ontario whereby all potentially significant effects on the social, economic and natural environments by a proposed undertaking are identified and evaluated at a stage when alternative solutions, including remedial measures and the alternative of not proceeding, are available to the decision makers. It will also ensure that those responsible for proposing as well as approving an undertaking, give due consideration to the means of avoiding or mitigating any adverse environmental effects prior to the granting of approval to proceed with the undertaking.

It should be noted that the emphasis is on the process of decision-making and not the production of an environmental assessment document.

## 3. Section 5(1) - The Prohibition

The key component of the Legislation is the prohibition clause. Section 5(1) reads as follows:

> **5.**—(1) The proponent of an undertaking to which this Act applies shall submit to the Minister an environmental assessment of the undertaking and shall not proceed with the undertaking until,
>
> (*a*) the environmental assessment has been accepted by the Minister; and
>
> (*b*) the Minister has given his approval to proceed with the undertaking.

Process Precedes Document

What the Legislation does is require the proponent to produce a document for review before he takes any steps to implement a project. Both the Environmental Assessment document, and the timing of its submission, have been designed in a way which is intended to prompt the proponent to use an environmental planning process. The process is distinct from, and comes before, the preparation of the Environmental Assessment document.

The planning model envisaged by The Environmental Assessment Act is essentially an adaptation of the approaches traditionally used by planners and engineers, but with an explicit requirement that the environment be considered. The steps involved in the approach are:

1. Identify purpose
2. Identify alternatives
3. Study environment which may be affected by alternatives
4. Identify likely effects of alternatives on the environment
5. Identify mitigation possibilities for alternatives
6. Evaluate alternatives in terms of their positive and negative effects on the environment
7. Decide on on optimal alternative
8. Monitor results and adjust as necessary.

## 5. Contents of an Environmental Assessment Document

The contents of an environmental assessment document are presented in Figure 1. All of the steps described above leading up to a decision can be seen in the wording of the Act and they are almost in the same order with the exception that the proposed undertaking, since it has been identified through the process, is now discussed with the alternatives.

When the contents of an environmental assessment document as set out in Ontario's legislation are considered, it is important to remember that the word "environment" is very broadly defined in Section 1(c) of the Act. Figure 3 shows this definition.

Given this broad definition, it becomes evident that Ontario's environmental assessment process is directed at providing better information for decision-makers - not just in terms of effects on the natural environment, but in terms of the entire range of effects (both positive and negative) which the project might generate. Environmental Assessment is not intended to make natural environmental factors paramount. Rather, it is intended to see that they are given fair weight and consideration in the decision-making process. Perhaps the intent of the Legislature might have been clearer had the statute been entitled not The Environmental Assessment Act but, "The Decision-Making Act".

FIGURE 1: CONTENTS OF AN ENVIRONMENTAL ASSESSMENT DOCUMENT

(Section 5(3) of The Environmental Assessment Act, 1975)

(3) An environmental assessment submitted to the Minister pursuant to subsection 1 shall consist of,

(*a*) a description of the purpose of the undertaking;

(*b*) a description of and a statement of the rationale for,

(i) the undertaking,

(ii) the alternative methods of carrying out the undertaking, and

(iii) the alternatives to the undertaking;

(*c*) a description of,

(i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,

(ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and

(iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment,

by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

(*d*) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking. 1975, c. 69, s. 5.

FIGURE 2: DEFINITION OF "ENVIRONMENT"

(Section 1(c) of The Environmental Assessment Act, 1975)

(*c*) "environment" means,

(i) air, land or water,

(ii) plant and animal life, including man,

(iii) the social, economic and cultural conditions that influence the life of man or a community,

(iv) any building, structure, machine or other device or thing made by man,

(v) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of man, or

(vi) any part or combination of the foregoing and the interrelationships between any two or more of them,

in or of Ontario;

With such a broad definition of "environment", one might wonder how the scope of an environmental assessment document can be delimited. Again, the decision-making aspect of the document must be stressed. It is not an attempt to build a data base for the Ontario Government at the proponent's expense. The rule of thumb used is that the level of detail need only be sufficient to support the kind of decision for which approval is requested.

6. The Review

Accompanying the Act in Appendix 4 is a detailed flow chart outlining the procedural possibilities under The Environmental Assessment Act.

In overview, there are four basic components to the administrative process established by The Environmental Assessment Act:

1. Preparation of the Environmental Assessment Document.
2. Review of The Environmental Assessment Document.
3. Decision-Making.
4. Public Involvement.

a) Preparation of the Environmental Assessment Document

At the concept stage of an undertaking, the proponent identifies whether or not The Environmental Assessment Act applies to the undertaking. To do this, the proponent should consult the Act and the Regulations or check with the Ministry of the Environment. If the Act is not applicable, no assessment is required and the proponent proceeds through the normal approvals processes. If the Act applies, then the proponent must complete the Environmental Assessment process as a prerequisite to any other approvals.

Although the Legislation does not make this a requirement, when the proponent recognizes that an Environmental Assessment is required the first step should be to contact the Ministry of the Environment to discuss, on an informal basis, the matters which should be addressed by Environmental Assessment.

Following the consultation stage, the proponent, or consultant hired by the proponent, prepare the Environmental Assessment document in conformance with the requirements of the Act, regulations and guidelines.

The cost of preparing an Environmental Assessment document is expected to be relatively low in comparison with total project outlay. Based on experience in Ontario and other jurisdictions, the costs incurred by the proponents of an undertaking in completing environmental assessment studies and

documentation are less than one percent (usually in the range of 1/10 of 1 percent to 7/10 of 1 percent) of the total project development costs.

b) Review of Environmental Assessment Document

When an Environmental Assessment is submitted, the Minister is required to prepare a review of it. The purpose of the review is to verify the completeness and accuracy of the document as prepared by the proponent. The basic criterion here is whether or not the document is a satisfactory basis for a decision on project approval.

Although it is not spelled out in the Legislation, other ministries with an interest in the undertaking or its implications will be provided with an opportunity to review the Environmental Assessment and make comments and recommendations. Part of role of the Ministry of the Environment as co-ordinator will be to resolve, through consultation, conflicts among the ministerial positions. Where conflicts cannot be resolved at the staff level, the Ministry of the Environment is not, it must be emphasized, in a position to impose a solution. Rather, conflict resolution will take place through consideration by the affected Ministers, Cabinet Committee or full Cabinet.

From the proponent's viewpoint, this co-ordinated review at an early stage in project planning may prove advantageous. An attempt will be made to see that all agencies from which the

proponent may subsequently require approvals are involved in the Environmental Assesmentment review. This may mean a considerable saving of time when the project reaches the stage where it is possible to apply for these approvals.

c) Decision-Making

There are two distinct types of decisions to be made in the Environmental Assessment review process. The first of these concerns the acceptance, or amendment and acceptance of the Environmental Assessment document. As mentioned in discussing the review component, the objective in this first decision is to ensure that the Environmental Assessment document is sufficiently accurate and complete to form the basis of the second decision. The second decision type involves the question of whether the undertaking for which the Environmental Assessment has been submitted should be approved, approved with conditions, or refused approval.

In addition to there being two types of decisions, there are also two possible decision-makers. One of these is the Minister of the Environment who can act by himself when deciding on acceptance of the Environmental Assessment document, but must act with Cabinet approval when deciding the question of project approval. The second possible decision-maker is the Environmental Assessment Board an administrative tribunal created under The Environmental Assessment Act.

The Environmental Assessment Board is constituted as a decision-making body. It will operate under the rules of The Statutory Powers Procedure Act.

The Environmental Assessment Act does not provide for any formal appeal from a decision of the Board. However, the Act does provide that a Board decision is not effective for a period of twenty-eight days, or such longer period as determined by the Minister of the Environment. During this period of time, the Minister, with the approval of Cabinet, may vary the Board's decision, substitute for it, or require a new hearing on all or any part of the matters which the Board has dealt with. If Cabinet does not exercise this prerogative, then the Board's decision becomes final.

The involvement of the Cabinet in the second type of decision, whether made by the Minister of the Environment or the Environmental Assessment Board, recognizes that the decision on project approval will often involve trade-offs between legitimate but competing or conflicting objectives of Government. This emphasizes the point made earlier that Environmental Assessment is intended to ensure that natural environmental factors are given due weight, but is not intended to make them paramount in all cases. Under our parliamentary system of Government, it is appropriate that the Cabinet and not a single Minister or an appointed Board, is ultimately responsible to the Legislature and to the people for determining which values are to be given the most weight.

d) Opportunities For Public Involvement In The Environment Assessment Review Process

An important aspect of The Environmental Assesment Act is provision of a formal procedure through which interested members of the public can influence decisions on undertakings affecting their lives by making formal presentation to the Minister of the Environment and by participating in public hearings.

At the time the Environmental Assessment is submitted to the Minister of the Environment the document is placed on the public record. From this time forward the Environmental Assessment is public, and people will have the opportunity to inspect and review the Environmental Assessment.

The Ministry of the Environment will then coordinate a government review of the Environmental Assessment. When this review is completed, a formal public notice will be given and the review will become a public document. The public will then have the opportunity to evaluate the government review of the Environmental Assessment and comment on it.

If required to do so, the Environmental Assessment Board then will hold public hearings at which time parties to the hearings will be given the opportunity to give evidence and cross-examine other people giving evidence.

The points outlined above are the opportunities for formal input as allowed for by The Environmental Assessment Act. The Minstry however, encourages the proponent to involve the public in the preparation of the Environmental Assessment. In the Ministry's experience, proponents are usually quick to realize that they will be in a very weak position to discuss the social impacts of a proposed project if they have not consulted the people affected. This informal involvement however is not a requirement of the Act.

## 7. E.A. Update

The Ministry issues a publication entitled E.A. Update on a regular basis. The objective of the newsletter is to provide information on activities concerning The Environmental Assessment Act, 1975. E.A. Update will regularly include information regarding the status of review of individual Environmental Assessment documents, Regulations under the E. A. Act, notice of public hearings held by the Environmental Assessment Board, general guidelines for the preparation of E.A. documents and other related subjects.

## 8. What Projects are Subject to the Act?

In preparing the Environmental Assessment Bill, one of the most critical matters to resolve was the selection of a legislative method of determining which projects are subject to the Act and which are not.

Some kinds of projects typically have significant environmental effects and should obviously require assessment. Other kinds of projects have no potentially significant effects and should be excluded from the EA requirement. Between these extremes there is a large grey area comprised of projects which have significant impact in some circumstances and not in others.

Section 3 of The Environmental Assessment Act, which deals with the application of the Act is shown in Figure 3. Of course, this section does not stand alone, but must be read in the context of the rest of the Act. Specifically, it should be noted that the Act provides for exemptions to be made. Section 30 allows exemptions to be granted by order of the Minister of the Environment subject to Cabinet approval. Section 41 provides for exemptions to be made by regulation.

Considering Section 3 in the light of these exemption provisions, its effect can be summarized in two statements:

- Section 3 (a): For the public sector,
Everything is subject to the Act unless exempted.
- Section 3 (b): For the private sector,
Everthing is exempted from the Act unless designated by regulation.

FIGURE 3: Section 3 of The Environmental Assessment Act, 1975

**3.** This Act applies to,

(*a*) enterprises or activities or proposals, plans or programs in respect of enterprises or activities by or on behalf of Her Majesty in right of Ontario or by a public body or public bodies or by a municipality or municipalities on and after the day this Act comes into force;

(*b*) only on and after a day to be named in a proclamation of the Lieutenant Governor, major commercial or business enterprises or activities or proposals, plans or programs in respect of major commercial or business enterprises or activities of a person or persons other than a person referred to in clause *a*, designated by the regulations.

(Excerpt from The Environmental Assessment Act, 1975)

(a) Public Sector

All undertakings carried out by the Provincial Government are subject unless specifically exempted. A number of Exemption Orders came into force at the time the Act was proclaimed. These Exemption Orders affect specific undertakings of those ministries and agencies which have not been exempted from the Act by Regulation. There are three basic types of orders. The first exempts certain undertakings which are unlikely to have serious environmental consequences. The second exempts undertakings that are already well underway, thus allowing them to be completed. The third type provides a temporary exemption of certain undertakings so that they can be carried on until an environmental assessment can be submitted. Following that time, they would have to be carried out in accordance with an approval obtained under The Environmental Assessment Act.

Many of the Exemption Orders are subject to various conditions to ensure that the granting of the exemptions is consistent with the purpose of the Act. Where applicable, the orders contain lists of individual projects within the undertaking or require that such lists be furnished and made public. Many of the exempt undertakings have previously been approved under the procedures existing prior to the coming into force of The Environmental Assessment Act. A detailed list of projects subject to the Act is contained in Appendix 6.

The activities of the following Ministries have been exempted by Cabinet from the provisions of the Act by Regulation #836.

| | | |
|---|---|---|
| 1. | The Ministry of Revenue | These ministries do not carry out their own construction programs. Environmentally significant activities carried out on their behalf by the Ministry of Government Services and are regulated as activities of that Ministry. |
| 2. | The Ministry of Labour | |
| 3. | The Ministry Correctional Services | |
| 4. | The Attorney-General | |
| 5. | The Ministry of Colleges and Universities | |
| 6. | The Solicitor-General | |
| 7. | The Ministry of Community and Social Services | |
| 8. | The Ministry of Consumer and Commercial Relations | |
| 9. | The Ministry of Education | |
| 10 | The Ministry of Health | |
| 11. | The Ministry of Agriculture and Food | Environmentally significant activities regulated under existing legislation. |
| 12 | The Ministry of Housing | |

Municipalities have been exempted by regulation from the initial phase in order to allow time for discussions to be completed with municipal representatives about the types of municipal undertakings which should be subject to the Act or exempted. A joint committee was established with representatives from this Ministry, the Municipal Engineers Association and the Municipal Liaison Committee to carry out these discussions. As a result of this working group's efforts, and public response to its Report, the Minister of the Environment has recently (October 21) outlined a proposed approach for bringing municipalities under the Act.

Municipalities are currently exempted until thirty days after a regulation is passed placing them under the Act. A draft regulation is expected early in 1978.

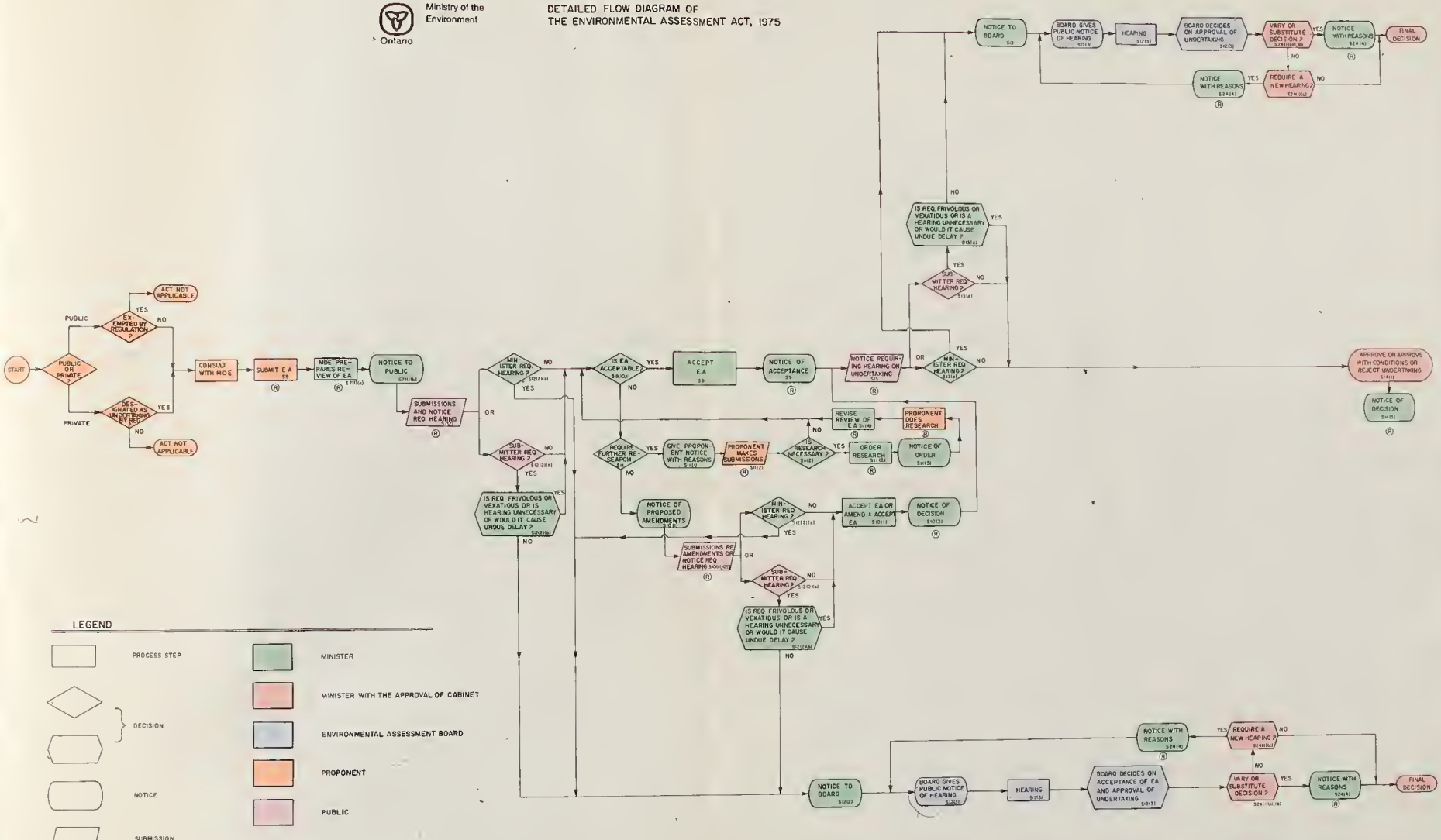
(b) Private Sector Projects

Private sector undertakings are not subject to provisions of The Environmental Assessment Act unless designated by a regulation passed by the Lieutenant-Governor-in-Council. To date two private sector undertakings have been designated, of which the Reed Limited proposal for locating, constructing, supplying and operating integrated wood using manufactories in Northwestern Ontario is applicable to the area north of the $50^{o}$ Parallel. The regulation designating this undertaking is contained in Appendix 7.

Ministry of the Environment

Ontario

# DETAILED FLOW DIAGRAM OF THE ENVIRONMENTAL ASSESSMENT ACT, 1975


START
PUBLIC OR PRIVATE
PUBLIC
PRIVATE
EXEMPTED BY REGULATION ?
ACT NOT APPLICABLE
DESIGNATED AS UNDERTAKING BY REG.
CONSULT WITH MOE
SUBMIT E A S5
MOE PREPARES REVIEW OF E A S7(1)(a)
NOTICE TO PUBLIC S7(1)(b)
SUBMISSIONS AND NOTICE REQ HEARING
MINISTER REQ HEARING ? S12(2)(a)
SUBMITTER REQ HEARING ? S12(2)(b)
IS REQ FRIVOLOUS OR VEXATIOUS OR IS HEARING UNNECESSARY OR WOULD IT CAUSE UNDUE DELAY ? S12(3)(b)
IS EA ACCEPTABLE ? S9(1)(i)
ACCEPT EA S9
NOTICE OF ACCEPTANCE S9
NOTICE REQUIRING HEARING ON UNDERTAKING S13
MINISTER REQ HEARING ? S13(a)
SUBMITTER REQ HEARING ? S13(a)
IS REQ FRIVOLOUS OR VEXATIOUS OR IS A HEARING UNNECESSARY OR WOULD IT CAUSE UNDUE DELAY ? S13(b)
APPROVE OR APPROVE WITH CONDITIONS OR REJECT UNDERTAKING S14(1)
NOTICE OF DECISION S14(3)
REQUIRE FURTHER RESEARCH S11(1)
GIVE PROPONENT NOTICE WITH REASONS S11(1)
PROPONENT MAKES SUBMISSIONS S11(2)
IS RESEARCH NECESSARY ? S11(2)
ORDER RESEARCH S11(2)(b)
NOTICE OF ORDER S11(3)
REVISE REVIEW OF E A S11(4)
PROPONENT DOES RESEARCH
NOTICE OF PROPOSED AMENDMENTS S10(1)
MINISTER REQ HEARING ? S12(2)(a)
SUBMITTER REQ HEARING ? S12(2)(b)
SUBMISSIONS RE AMENDMENTS OR NOTICE REQ HEARING S10(1)(c)
IS REQ FRIVOLOUS OR VEXATIOUS OR IS A HEARING UNNECESSARY OR WOULD IT CAUSE UNDUE DELAY ? S12(3)(b)
ACCEPT EA OR AMEND & ACCEPT EA S10(1)
NOTICE OF DECISION S10(2)
NOTICE TO BOARD S5(3)
BOARD GIVES PUBLIC NOTICE OF HEARING S12(3)
HEARING S12(3)
BOARD DECIDES ON APPROVAL OF UNDERTAKING S12(3)
VARY OR SUBSTITUTE DECISION ? S24(1)(a),(b)
NOTICE WITH REASONS S24(4)
FINAL DECISION
NOTICE WITH REASONS S24(4)
REQUIRE A NEW HEARING ? S24(1)(c)
NOTICE TO BOARD S5(3)
BOARD GIVES PUBLIC NOTICE OF HEARING S12(3)
HEARING S12(3)
BOARD DECIDES ON ACCEPTANCE OF EA AND APPROVAL OF UNDERTAKING S14(3)
VARY OR SUBSTITUTE DECISION ? S24(1)(a),(b)
NOTICE WITH REASONS S24(4)
REQUIRE A NEW HEARING ? S24(1)(c)
NOTICE WITH REASONS S24(4)
FINAL DECISION

## LEGEND

- PROCESS STEP
- DECISION
- NOTICE
- SUBMISSION
- END OF PROCESS
- (R) DOCUMENT INTO RECORD

- MINISTER
- MINISTER WITH THE APPROVAL OF CABINET
- ENVIRONMENTAL ASSESSMENT BOARD
- PROPONENT
- PUBLIC

JULY 1975

# A P P E N D I X  5

## Guidelines and Criteria for Water Quality Management in Ontario

# Guidelines and Criteria for Water Quality Management in Ontario

Ontario

Ministry of the Environment

Hon. William G. Newman, Minister

Everett Biggs, Deputy Minister

135 St. Clair Avenue, West, Toronto, Ontario M4V1P5

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# INTRODUCTION

In 1967, the Ontario Water Resources Commission announced its Policy Guidelines for Water Quality Control in the Province of Ontario. This publication contains a re-statement of the guidelines and introduces water quality criteria for various uses including public, agricultural and industrial water supply, recreation, aesthetic enjoyment and the propagation of fish and wildlife. The use of water for assimilation and dilution of treated wastes must take into consideration these many desirable uses. Application of the criteria to water uses within the drainage basins of the province, or parts thereof, will lead to the development of water quality standards for the control of water pollution.

Enough water of suitable quality for all of Ontario is the overall objective of the Ministry of the Environment.

# WATER QUALITY CRITERIA

The following criteria for water quality are a set of numerical and descriptive characteristics, carefully defined, and applicable to each major water use category such as agriculture; fish, other aquatic life and wildlife; industrial water supply; public water supply; recreation and aesthetics. The criteria are described for use in establishing Water Quality Standards for drainage basins which in turn will be used to determine Effluent Requirements for discharges of wastes and land drainage.

The responsibility for demonstrating that a waste effluent is harmless to water uses in the concentrations to be found in the receiving waters, rests with those producing the discharge. Zones of passage and/or mixing adjacent to outfalls at the limit of which water quality may be critical, will be prescribed by the Ministry.

Reference is frequently made in the Criteria to the Report of the Committee on Water Quality, Federal Water Pollution Control Administration, U.S. Department of the Interior (1968). Acknowledgement of the report is gratefully given in recognition of its basic reference value.

## ZONES OF PASSAGE AND MIXING

Mixing zones in the vicinity of outfalls should be restricted as much as possible in extent and should provide for the safe passage of both fish and free-floating and drift organisms. Every precaution should be taken to ensure that at least two-thirds of the total cross-sectional area of a river or stream is characterized by a quality which is entirely favourable to the aquatic community at all times. In most cases this would preclude the use of a diffuser outfall which would distribute effluent uniformly across the river or stream. The water quality standard which defines the acceptable concentration of a substance contained in a waste discharge will apply at the periphery of the mixing zone or other specified sampling location.

Within mixing zones, it should be recognized that toxic wastes which will not evoke an avoidance response on the part of fish or other organisms should not be permitted. Where toxic materials are being discharged it should be assumed that the various components in the waste, regardless of the form in which they are present, may eventually be altered to the most toxic form in the aquatic environment. Adequate treatment of all wastes should be provided and mixing zones should not be considered as a substitute for proper treatment.

## STATISTICAL PROBLEMS IN SETTING LIMITS

The systematic surveillance of water and waste sources requires the collection of data to clearly represent the problems being studied. The problems are many and varied. In one case the average condition over a period of time may be required and the question arises over what period shall the average or median be taken; in another, the limit may be a figure that should not be exceeded at any time. If a standard for a certain constituent is "none", the question arises "how small an amount does this mean?" The answers vary with the type of standard and the circumstances governing the fluctuation of the indicator. In ground water problems, only the average over a considerable period of time is significant. Where required in the setting of standards and effluent requirements, definitions of limits will include the applicable sampling conditions, quantitative values and rates of discharge.



## 1 WATER QUALITY CRITERIA FOR AGRICULTURAL USES (AGR)

Agricultural production requires water of suitable quality for a variety of uses. Criteria for the major uses are given under three headings: Dairy Sanitation, Livestock Watering, and Irrigation.

Requirements for domestic and other farmstead uses and the common requirements for dairy sanitation are given elsewhere in the criteria for Private Water Supplies and Public Water Supplies.

### AGR-1 Dairy Sanitation

Modern methods for bulk handling of milk on farms require large volumes of good quality water to ensure a premium product. The quality of water needed for good dairy sanitation requires criteria for certain parameters that are additional to, or more stringent than, those required for private water supplies. These are summarized under the headings "Permissible Criteria" and "Desirable Criteria". They should be used in conjunction with the criteria for public and private water supplies.

Treatment may prove satisfactory in meeting the criteria for certain of the inorganic chemicals such as iron and total hardness.

Waters that meet the desirable microbiological criteria can be used without disinfection; those meeting the permissible criteria require disinfection (chlorination), or chlorination and filtration, before use to reduce bacteria to levels where they will not cause deterioration of the quality of milk. Waters used for dairy sanitation should be sampled and tested at least monthly, in some cases daily, to ensure that they meet the microbiological criteria.

**TABLE AGR-1**

**Water Quality Criteria for Agricultural Uses**
**Dairy Sanitation**

| Constituent or Characteristic | Permissible Criteria | Desirable Criteria |
|---|---|---|
| Inorganic Chemicals: | | |
| Copper | 0.1 mg/l | |
| Iron | 0.1 mg/l | |
| pH (range) | 6.8 to 8.5 | |
| Potassium | 20 mg/l | |
| Total hardness as $CaCO_3$ | 150 mg/l | 100 mg/l |
| Microbiological: | | |
| Proteolytic and/or Lipolytic bacteria (20°C) (individual results) | 500/100 ml | 0/100 ml |
| Yeast | | Absent |
| Mould | | Absent |
| Physical: | | Clear |
| | | Colourless |
| | | Good taste |

**AGR-2 Livestock Watering**

The health and productivity of livestock are affected by the quantities of various substances ingested as feed and as water. Accordingly, the amounts of certain substances that can be present without harm in water consumed by livestock will depend in part on the amounts of the same substances that are present in the feed in addition to a number of other factors which include: the daily water requirements and the species, age, and physiological condition of the animals, and the nature and quantities of other constituents of the feed and water.

Animals may be able to tolerate a fairly high level of total dissolved solids or bacteria if they are accustomed to such levels, but may be unable to tolerate a sudden change from waters with low dissolved solids or bacteria to waters with high dissolved solids or bacteria.

In addition to direct effects on the animals, certain substances may contaminate animal products to the point where they will not be acceptable for human consumption.

The variability of the factors that influence the acceptability of water for livestock-watering purposes must be considered when using the water quality criteria. Although the criteria provide a general guide to the quality of water that will be acceptable for most livestock, there may be cases where water of different quality than that indicated by the criteria will be required or acceptable because of the nature, age, or condition of species being raised or because of special rearing conditions or feed components. In such cases, or where the quality of an individual supply is in doubt, the quality should be assessed in relation to the specific use.

Water meeting the permissible criteria will be satisfactory for most livestock under normal rearing conditions. Water meeting the desirable criteria should provide a palatable and safe source for all normal livestock-watering purposes.

**TABLE AGR-2**
**Water Quality Criteria for Agricultural Uses**
**Livestock**

| Constituent or Characteristic | Permissible Criteria | Desirable Criteria |
|---|---|---|
| General Quality | | ideally should meet the desirable criteria for private water supplies. |
| Inorganic Chemicals: | | |
| Total Dissolved Solids | 2500 mg/l | < 500 mg/l |
| Arsenic | 0.05 mg/l | Absent |
| Cadmium | 0.01 mg/l | Absent |
| Chromium (hexavalent) | 0.05 mg/l | Absent |
| Fluoride | 2.4 mg/l | 1.2 mg/l |
| Lead | 0.05 mg/l | Absent |
| Nitrate plus Nitrite (as N) | 20 mg/l | < 10 mg/l |
| Selenium | 0.01 mg/l | Absent |
| Sulphate | 1000 mg/l | < 250 mg/l |
| Radioactivity: | | |
| Radium-226 | 3 pc/l | < 1 pc/l |
| Strontium-90 | 10 pc/l | < 2 pc/l |
| Gross beta activity in the known absence of strontium-90 and alpha-emitting radionuclides. | 1000 pc/l | < 100 pc/l |
| Microbiological: (1) | | |
| Enterococci (35°C) | < 40/100 ml | 0/100 ml |
| Algae | No heavy growth of blue-green algae | |

(1) The supply should be free of barnyard runoff and of effluent contamination from either man or animals. The geometric mean of sample results should not exceed the values given.



**AGR-3 Irrigation**

The suitability of water for irrigation cannot be defined precisely because the effects of the water on the crop being irrigated depend on many factors. These include: soil types, climatic conditions, irrigation practices, variations in the relation between the concentration and composition of the irrigation water and the soil solution, variations in the tolerance of different plants to the combined or individual constituents in the irrigation water or the soil solution, and the modifying effects of interrelations between and among the constituents. In general, for satisfactory irrigation, soils with poor drainage characteristics require water of higher quality than better drained soils.

In humid areas, excessive concentrations of salts or individual elements will normally be leached from the soil during periods of heavy rainfall or snowmelt before or after the growing season. This leaching action is another factor affecting the quality of water that can be used for irrigation. It may allow the use of water of poorer quality than that listed in these criteria for some crops and conditions without serious detrimental effects. Also through proper timing and adjustment of frequency and volumes of water applied, detrimental effects of poorer quality water may often be mitigated. Good drainage of soil may be a factor of similar importance as the quality of the water used.

The presence of sediment, pesticides, or pathogenic organisms in irrigation water, which may not specifically affect plant growth, may affect the acceptability of the product. Larger sediment particles could lead to plugging of sprinkler nozzles.

Although there are many variations in the quality of water that is suitable for specific irrigation uses, water quality criteria have been assembled as a guide to the quality of water that will meet many irrigation needs. The criteria are listed as permissible and desirable. Water meeting the desirable criteria should be satisfactory for irrigation of most crops in most soil types for long periods of time. Water meeting the permissible criteria, while suitable for many crops, soil and climatic conditions, could result in decreased yields for some crops if it is used repeatedly, unless there is dilution or leaching by precipitation or the application of excess irrigation water under favourable drainage conditions. Special crops or conditions, such as the growing of plants in greenhouses, may require irrigation with water of higher quality than that indicated by the desirable criteria.

The suitability of a given source of water for specific crops, soil types, and climatic conditions should be judged on an individual basis if its suitability has not been demonstrated by practice.

**TABLE AGR-3**

**Water Quality Criteria for Agricultural Uses**

**Irrigation**

| Constituent or Characteristic | Permissible Criteria | Desirable Criteria |
|---|---|---|
| Physical: | | |
| Temperature | | 55°F to 85°F |
| Microbiological: (1) | | |
| Fecal Coliforms (44.5°C) | 100/100 ml | 0/100 ml |
| Enterococci (35°C) | 20/100 ml | 0/100 ml |
| Total bacteria (20°C) | 100,000/100 ml | < 10,000/100 ml |
| Inorganic Chemicals: | | |
| Aluminum | 20.0 mg/l | < 1.0 mg/l |
| Arsenic | 10.0 mg/l | < 1.0 mg/l |
| Beryllium | 1.0 mg/l | < 0.5 mg/l |
| Boron | 0.5 mg/l | 0.3 mg/l |
| Cadmium | 0.05 mg/l | < 0.005 mg/l |
| Chloride | 150 mg/l | < 70 mg/l |
| Chloride—special requirement for tobacco | 70 mg/l | < 20 mg/l |
| Chromium | 20.0 mg/l | < 5.0 mg/l |
| Cobalt | 10.0 mg/l | < 0.2 mg/l |
| Copper | 5.0 mg/l | < 0.2 mg/l |
| Lead | 20.0 mg/l | < 5.0 mg/l |
| Lithium | 5.0 mg/l | < 5.0 mg/l |
| Manganese | 20.0 mg/l | < 2.0 mg/l |
| Molybdenum | 0.05 mg/l | < 0.005 mg/l |
| Nickel | 2.0 mg/l | < 0.5 mg/l |
| pH (range) | 4.8 to 9.0 | |
| Residual Sodium Carbonate $=(CO_3^{--}+HCO_3^{-})-(Ca^{++}+Mg^{++})$ expressed as mg eq/l | 1.25 mg eq/l | < 1.25 mg eq/l |
| Selenium | 0.05 mg/l | < 0.05 mg/l |
| Sodium Adsorption Ratio $=\frac{Na^{+}}{\sqrt{\frac{Ca^{++}+Mg^{++}}{2}}}$ expressed as mg eq/l | 6 | < 4 |
| Total dissolved solids | 500 mg/l | < 200 mg/l |
| Vanadium | 10.0 mg/l | < 10.0 mg/l |
| Zinc | 5.0 mg/l | < 5.0 mg/l |
| Organic Chemicals: | | |
| Pesticides | Insecticides, herbicides, fungicides, and rodenticides must not be present in waters used for irrigation in concentrations that are detrimental to crops, livestock, wildlife or man. | Absent |

(1) The geometric mean of sample results should not exceed the values given.



## 2 WATER QUALITY CRITERIA FOR THE PROTECTION OF FISH, OTHER AQUATIC LIFE AND WILDLIFE (F & W)

The following criteria are considered to be satisfactory for fish, other aquatic life and wildlife. Reference is made to aspects of water quality considered to be most important in the light of current knowledge. Narrative guidelines are offered where quantification is not yet possible.

### Dissolved Materials

Dissolved materials should not be added to increase the concentration of dissolved solids by more than one-third of the natural condition of the receiving water, owing to potentially harmful osmotic effects of high concentrations. Dissolved materials that are harmful in relatively low concentrations are discussed in the section "Toxic Substances".

### pH, Alkalinity, Acidity

(1) pH should be maintained within a range of 6.5 to 8.5.

(2) To protect the carbonate system, and thus the productivity of the water, acid should not be added in sufficient quantity to lower the total alkalinity to less than 20 mg/l.

### Temperature

(1) **General**

Unless a special study shows that discharge of a heated effluent into the hypolimnion of a lake will be desirable, such practice is not recommended and water for cooling should not be pumped from the hypolimnion to be discharged to the same body of water.

The normal daily and seasonal temperature variations that were present before the addition of heat due to other than natural causes should be maintained.

Wherever possible, heated discharges should be located where elevated temperature will enhance public utilization of the water by supporting a wider variety of water uses.

(2) **Great Lakes and Connecting Waters**

(a) Heated discharges are not permitted that may stimulate production of nuisance organisms or vegetation or that are or may become injurious to wildlife, waterfowl, fish or other aquatic life or the growth and reproduction thereof. For each discharge of a heated effluent, acceptable mixing zones will be established on the basis of features and facts pertinent to that specific situation.

(b) Heat may not be discharged in the vicinity of spawning areas or where increased water temperature might interfere with recognized movements of spawning or migrating fish populations.

(3) **Inland Waters**

(a) Heated discharges to inland waters will not be permitted unless it is clearly demonstrated that heated effluents will enhance the usefulness of the water resource without endangering the production and optimum maintenance of wildlife, fish and other aquatic species. It shall be the responsibility of the user to provide evidence to support the acceptability of the discharge under these terms.

(b) Inland trout streams, salmon streams, trout and salmon lakes and the hypolimnion of lakes and reservoirs containing salmonids and other cold water forms should not be warmed.

(c) Heat may not be discharged in the vicinity of spawning areas or where increased temperature might interfere with recognized movements of spawning or migrating fish populations.

### Dissolved Oxygen

(1) **Warm-water Biota**

The dissolved oxygen (DO) concentration should be above 5 mg/l at all times, except that in certain situations concentrations may range between 5 and 4 mg/l for short intervals within any 24-hour period provided that water quality is favourable in all other respects.

(2) **Cold-water Biota**

In spawning areas, DO levels must not be below 7 mg/l at any time. Elsewhere, DO concentrations should not be below 6 mg/l. In certain situations, they may range between 6 and 5 mg/l for short intervals within any 24-hour period, provided the water quality is favourable in all other respects.

### Carbon Dioxide

The 'free' carbon dioxide concentration should not exceed 25 mg/l.

### Oil

Oil, petrochemicals or other immiscible substances that will cause visible films or toxic, noxious or nuisance conditions should not be added to water.

### Turbidity

(1) Turbidity associated with waste inputs should not exceed 50 Jackson units in warm-water streams or 10 Jackson units in cold-water streams.

(2) There should be no discharge which would cause turbidities exceeding 25 Jackson units in warm-water lakes or 10 Jackson units in cold-water or oligotrophic lakes.

**Settleable Materials**

Substances should not be added that will adversely affect the aquatic biota or will create objectionable deposits on the bottom or shore of any body of water.

**Colour and Transparency**

For effective photosynthetic production of oxygen, it is required that 10 per cent of the incident light reach the bottom of any desired photosynthetic zone in which adequate dissolved oxygen concentrations are to be maintained.

**Floating Materials**

All floating materials, other than those of natural origin, should be excluded from streams and lakes.

**Tainting substances**

All materials that will impart odour or taste to fish or edible invertebrates should be excluded from receiving waters at levels that produce tainting.

**Radionuclides**

Radioactive materials should not be present in natural waters as a consequence of failure to exercise necessary controls of radioactivity releases to keep exposure to a minimum.

Experience has shown that standards established for drinking water assure that people will receive no more than currently acceptable amounts of radioactive materials from aquatic sources and that fish and other aquatic life will not receive an injurious dose of radiation.

Thus, present standards accepted for the protection of fish and other aquatic life are as follows:

| | pc/l |
|---|---|
| Gross beta emitters | 1000 |
| Radium-226 | 3 |
| Strontium-90 | 10 |

Where other radioisotopes occur, the significance of the exposure of aquatic species to these forms of radiation should be assessed for each situation, both with respect to potential damage to the organisms themselves and to humans where fish or other edible forms are utilized.

**Plant Nutrients and Nuisance Growths**

(1) Nutrients from unnatural sources that will stimulate production of algae, nuisance vegetation or offensive slime growths should not be added to water. The addition of sulphates or manganese oxide to a lake should be limited if iron is present in the hypolimnion as these substances may increase the quantity of available phosphorus.

(2) Organic or other materials that will promote an increased zone of anaerobic decomposition within a lake, reservoir or other body of water should not be allowed to enter the water.

(3) The naturally-occurring ratios of nitrogen (particularly $NO_3$ and $NH_4$) to total phosphorus, and their amounts, should not be radically changed by the addition of materials from waste sources and land drainage.

**Toxic Substances**

Toxic substances must not be added to water in concentrations or combinations that are toxic or harmful to human, animal, plant or aquatic life, except where the application of approved substances for the control of nuisance organisms has been authorized by the Ministry (Section 28b, OWRC Act).

The evaluation of toxicity for aquatic organisms is based on use of the TLm or median tolerance limit. This represents the concentration at which half the test organisms will succumb over a given period of exposure such as 24, 48 or 96 hours. It does not, therefore, represent the safe concentration and an application factor is applied to ensure a safe condition, including allowance for sub-lethal effects.

(1) **Substances of Unknown Toxicity**

All effluents containing foreign materials should be considered harmful and not permissible until bioassay tests have shown otherwise. The onus for demonstrating that an effluent is harmless in the concentrations to be found in the receiving waters rests with those responsible for the discharge. Information concerning acceptable bioassay procedures is available from the Ministry.

(2) **Application Factors**

Concentration of materials that are non-persistent (that is, have a half-life of less than 96 hours), or have non-cumulative effects after mixing with the receiving waters, should not exceed 1/10 of the applicable 96-hour TLm value at any time or place based on species representative of local conditions. The 24-hour average of the concentration of these materials should not exceed 1/20 of the TLm value after mixing. For other toxicants, the concentrations should not exceed 1/20 and 1/100 of the TLm value under the aforementioned conditions.

(3) **Additive Effects**

When two or more toxic materials that have additive effects are present at the same time in the receiving water, some reduction is necessary in the permissible concentrations as derived from bioassays on individual substances or wastes. The amount of reduction required is a function of both the number of toxic materials present and their concentrations in respect to the derived permissible concentration. An appropriate means of assuring that the combined



amounts of the several substances do not exceed a permissible concentration for the mixture is through the use of the following relationship:

$$\left(\frac{C_a}{L_a} + \frac{C_b}{L_b} \ldots + \frac{C_n}{L_n} \leq 1\right)$$

where $C_a$, $C_b$, ..... $C_n$ are the measured concentrations of the several toxic materials in the water and $L_a$, $L_b$, ..... $L_n$ are the respective permissible concentration limits derived for the materials on an individual basis. Should the sum of the several fractions exceed one, then a local restriction on the concentration of one or more of the substances is necessary.

(4) **Pesticides**

(a) Chlorinated Hydrocarbons:

Any addition of chlorinated hydrocarbon insecticides is likely to cause damage to some desired organisms and their use should be avoided.

(b) Other Chemical Pesticides:

Other pesticides and herbicides gaining access to water can cause damage to desirable organisms and should be used with utmost discretion and caution. Tables F & W-1 and F & W-2 list the 48-hour TLm values of a number of pesticides for various types of fresh water organisms. To provide reasonably safe concentrations of these materials in receiving waters, application factors ranging from 1/10 to 1/100 should be used, with these values depending on the characteristic of the pesticide in question and used as specified in (2) above. Concentrations thus derived may be considered tentatively safe under the conditions specified. TLm values and related application factors are subject to revision as additional bioassay information is obtained for species which may be more representative of local conditions.

(5) **Other Toxic Substances**

(a) ABS: The concentration of ABS should not exceed 1/7 of the 48-hour TLm at any time or place.

(b) LAS: The concentration of LAS should not exceed 1/7 of the 48-hour TLm at any time or place.

(c) ARSENIC: An application factor of 1/100 should be applied to the 96-hour TLm value as a tentative safe concentration for continuous exposure. An environmental level of .01 mg/l should not be exceeded under any circumstances.

(d) AMMONIA: Permissible concentrations of ammonia should be determined by the flow-through bioassay with the pH of the test solution maintained at 8.S, DO concentrations between 4 and S mg/l, and temperatures near the upper allowable levels.

(e) CADMIUM: The concentration of cadmium must not exceed 1/500 of the 96-hour TLm concentration at any time or place.

(f) CHROMIUM: The concentration of chromium should not exceed 1/100 of the 96-hour TLm at any time or place.

(g) COPPER: The maximum copper (expressed as Cu) concentration at any time or place shall not be greater than 1/12 of the 96-hour TLm value. The maximum permissible concentration for continuous exposure is between 3 per cent and 7 per cent of the 96-hour TLm.

(h) LEAD: The concentration of lead should not exceed 1/20 of the 96-hour TLm at any time or place and the 24-hour average should not exceed 1/100 of the 96-hour TLm concentration after mixing.

(i) MERCURY: Owing to demonstrated cumulative effects of mercury in fish, and the attendant hazard to other animals, discharges of mercury to water should be avoided.

(j) NICKEL: The concentration of nickel should not exceed 1/S0 of the 96-hour TLm concentration at any time or place.

(k) ZINC: The concentration of zinc should not exceed 1/100 of the 96-hour TLm concentration at any time or place.

**TABLE F & W-1 INSECTICIDES***

(48-hour TLm values from static bioassay, in micrograms per litre. Exceptions are noted.)

| Pesticide | Stream Invertebrate[1] Species | TLm | Cladocerans[2] Species | TLm | Fish[3] Species | TLm | Gammarus Lacustris,[4] TLm |
|---|---|---|---|---|---|---|---|
| Abate | Pteronarcys californica | 100 | | | Brook trout | 1,500 | 640 |
| Aldrin[5] | P. californica | 8 | Daphnia pulex. | 28 | Rainbow trout | 3 | 12,000 |
| Allethrin | P. californica | 28 | D. pulex | 21 | - do - | 19 | 20 |
| Azodrin | | | | | - do - | 7,000 | |
| Aramite | | | D. magna | 345 | Bluegill | 35 | 100 |
| Baygon[5] | P. californica | 110 | | | Fathead | 25 | 50 |
| Baytex[5] | P. californica | 130 | Simocephalus serrulatus | 3.1 | Brown t. | 80 | 70 |
| Benzene hexachloride (lindane) | P. californica | 8 | D. pulex | 460 | Rainbow t. | 18 | 88 |
| Bidrin | P. californica | 1900 | D. pulex | 600 | - do - | 8,000 | 790 |
| Carbaryl (sevin) | P. californica | 1.3 | D. pulex | 6.4 | Brown t. | 1,500 | 22 |
| Carbophenothion (trithion) | | | D. magna | 0.009 | Bluegill | 225 | 28 |
| Chlordane[5] | P. californica | 55 | S. serrulatus | 20 | Rainbow t. | 10 | 80 |
| Chlorobenzilate | | | S. serrulatus | 550 | - do - | 710 | |
| Chlorthion | | | D. magna | 4.5 | | | |
| Coumaphos | | | D. magna | 1 | | | 0.14 |
| Cryolite | | | D. pulex | 5,000 | Rainbow t. | 47,000 | |
| Cyclethrin | | | D. magna | 55 | | | |
| DDD (TDE)[5] | P. californica | 1100 | D. pulex | 3.2 | Rainbow t. | 9 | 1.8 |
| DDT[5] | P. californica | 19 | D. pulex | 0.36 | Bass | 2.1 | 2.1 |
| Delnav (dioxathion) | | | | | Bluegill | 14 | 690 |
| Delmeton (systex) | | | | 14 | - do - | 81 | |
| Diazinon[5] | P. californica | 60 | D. pulex | 0.9 | - do - | 30 | 500 |
| Dibrom (naled) | P. californica | 16 | D. pulex | 3.5 | Brook t. | 78 | 160 |
| Dieldrin[5] | P. californica | 1.3 | D. pulex | 240 | Bluegill | 3.4 | 1,000 |
| Dilan | | | D. magna | 21 | - do - | 16 | 600 |
| Dimethoate (cygon) | P. californica | 140 | D. magna | 2500 | - do - | 9600 | 400 |
| Dimethrin | | | | | Rainbow t. | 700 | |
| Dichlorvos[5] (DDVP) | P. californica | 10 | D. pulex | 0.07 | Bluegill | 700 | 1 |
| Disulfoten (di-syston) | P. californica | 18 | | | - do - | 40 | 70 |

* From Report of the Committee on Water Quality Criteria, Federal Water Pollution Control Administration, U.S. Department of the Interior (1968).



**TABLE F & W-1—continued**

| Pesticide | Stream Invertebrate[1] Species | TLm | Cladocerans[2] Species | TLm | Fish[3] Species | TLm | Gammarus Lacustris,[4] TLm |
|---|---|---|---|---|---|---|---|
| Dursban | Peteronareella badia | 1.8 | | | Rainbow t. | 20 | 0.4 |
| Endosulfan (thiodan) | P. californica | 5.6 | D. magna | 240 | - do - | 1.2 | 64 |
| Endrin[5] | P. californica | 0.8 | D. pulex | 20 | Bluegill | 0.2 | 4.7 |
| EPH | | | D. magna | 0.1 | - do - | 17 | 36 |
| Ethion | P. californica | 14 | D. magna | 0.01 | - do - | 230 | 3.2 |
| Ethyl guthion[5] | | | D. pulex | | Rainbow t. | | |
| Fenthion | P. californica | 39 | D. pulex | 4 | | | |
| Guthion[5] | P. californica | 8 | D. magna | 0.2 | Rainbow t. | 10 | 0.3 |
| Heptachlor[5] | P. badia | 4 | D. pulex | 42 | - do - | 9 | 100 |
| Kelthane (dicofel) | P. californica | 3000 | D. magna | 390 | - do - | 100 | |
| Kepone | | | | | - do - | 37.5 | |
| Malathion[5] | P. badia | 6 | D. pulex | 1.8 | Brook t. | 19.5 | 1.8 |
| Methoxychlor[5] | P. californica | 8 | D. pulex | 0.8 | Rainbow t. | 7.2 | 1.3 |
| Methyl parathion[5] | | | D. magna | 4.8 | Bluegill | 8000 | |
| Morestan | P. californica | 40 | | | - do - | 96 | |
| Ovex | P. californica | 1500 | | | - do - | 700 | |
| Paradichlorobenzene | | | | | Rainbow t. | 880 | |
| Parathion[5] | P. californica | 11 | D. pulex | 0.4 | Bluegill | 47 | 6 |
| Perthane | | | D. magna | 9.4 | Rainbow t. | 7 | |
| Phosdrin[5] | P. californica | 9 | D. pulex | 0.16 | - do - | 17 | 310 |
| Phosphamidon | P. californica | 460 | D. magna | 4 | - do - | 8000 | 3.8 |
| Pyrethrins | P. californica | 64 | D. pulex | 25 | - do - | 54 | 18 |
| Rotenone | P. californica | 900 | D. pulex | 10 | Bluegill | 22 | 350 |
| Strobane[5] | P. californica | 7 | | | Rainbow t. | 2.5 | |
| Tetradifon (tedion) | | | | | Bluegill | 1100 | 140 |
| TEPP[5] | | | | | Fathead | 390 | 52 |
| Thanite | | | D. magna | 450 | | | |
| Thimet | | | | | Bluegill | 5.5 | 70 |
| Toxaphene[5] | P. californica | 7 | D. pulex | 15 | Rainbow t. | 2.8 | 70 |
| Trichlorofon (dipterex)[5] | P. badia | 22 | D. magna | 8.1 | - do - | 160 | 60 |
| Zectran | P. californica | 16 | D. pulex | 10 | - do - | 8000 | 76 |

TABLE F & W-2

HERBICIDES, FUNGICIDES, DEFOLIANTS, ALGICIDES*

| Pesticide | Stream Invertebrate[1] Species | TLm | Cladocerans[2] Species | TLm | Fish[3] Species | TLm | Gammarus Lacustris,[4] TLm |
|---|---|---|---|---|---|---|---|
| Ametryne | | | | | Rainbow t. | 3400 | |
| Aminotriazole | | | | | | | |
| Aquathol | | | | | Bluegill | 257 | |
| Atrazine | | | Daphnia magna | 3600 | Rainbow t. | 12,600 | |
| Azide, potassium | | | | | Bluegill | 1400 | 10,000 |
| Azide, sodium | | | | | - do - | 980 | 9000 |
| Copper chloride | | | | | - do - | 1100 | |
| Copper sulphate | | | | | - do - | 150 | |
| Dichlobenil | Pteronarcys californica | 44,000 | Daphnia pulex | 3700 | - do - | 20,000 | 1500 |
| 2,4-D PGBEE | | | D. pulex | 3200 | Rainbow t. | 960 | 1800 |
| 2,4-D BEE | P. californica | 1800 | | | Bluegill | 2100 | 760 |
| 2,4-D isopropyl | | | | | - do - | 800 | |
| 2,4-D butyl ester | | | | | - do - | 1300 | |
| 2,4-D butyl + isopropyl ester | | | | | - do - | 1500 | |
| 2,4,5-T isooctyl ester | | | | | - do - | 16,700 | |
| 2,4,5-T isopropyl ester | | | | | - do - | 1700 | |
| 2,4,5-T PGBE | | | | | - do - | 560 | |
| 2(2,4-DP) BEE | | | | | - do - | 1100 | |
| Dalapon | P. californica Very low toxicity | | D. magna | 6000 | | | Very Low Toxicity |
| Dead-X | P. californica | 5000 | D. pulex | 3700 | Rainbow t. | 9400 | 5600 |
| DEF | P. californica | 2300 | | | Bluegill | 36 | 230 |
| Dexon | P. californica | 42,000 | | | Bluegill | 23,000 | 6000 |
| Dicamba | | | | | non-toxic | | 5800 |
| Dichlone | | | D. magna | 26 | Rainbow t. | 48 | 11,500 |
| Difolitan | P. californica | 150 | | | Channel Cat | 31 | 6500 |
| Dinitrocresol | P. californica | 560 | | | Rainbow t. | 210 | |
| Diquat | | | | | Rainbow t. | 12,300 | |
| Diuron | P. californica | 2800 | D. pulex | 1400 | - do - | 4300 | 380 |
| Du-ter | | | | | Bluegill | 33 | |
| Dyrene | | | D. magna | 490 | | 15 | |
| Endothal, copper | | | | | Rainbow t. | 290 | |

* From Report of the Committee on Water Quality Criteria, Federal Water Pollution Control Administration, U.S. Department of the Interior (1968).



TABLE F & W-2—continued

| Pesticide | Stream Invertebrate[1] Species | TLm | Cladocerans[2] Species | TLm | Fish[3] Species | TLm | Gammarus Lacustris,[4] TLm |
|---|---|---|---|---|---|---|---|
| Endothal dimethylamine | | | | | Rainbow t. | 1150 | |
| Fenac, acid | P. californica | 70,000 | | | - do - | 16,500 | |
| Fenac, sodium | P. californica | 80,000 | D. pulex | 4500 | - do - | 7500 | 18,000 |
| Hydram (molinate) | P. californica | 3500 | | | - do - | 290 | |
| Hydrothol 191 | | | | | - do - | 690 | 1000 |
| Lanstan (Korax) | | | | | - do - | 100 | 5500 |
| LFN | | | | | - do - | 79 | |
| Paraquat | P. californica Very low toxicity | | D. pulex | 3700 | Very low toxicity | | 18,000 |
| Propazine | | | | | Rainbow t. | 7800 | |
| Silvex, PGBEE | | | D. pulex | 2000 | - do - | 650 | |
| Silvex, isoctyl | | | | | Bluegill | 1400 | |
| Silvex, BEE | | | | | - do - | 1200 | |
| Simazine | P. californica | 50,000 | | | Rainbow t. | 5000 | 21,000 |
| Sodium arsenite | P. californica Very low toxicity | | Simocephalus serrulatus | 1400 | - do - | 36,500 | |
| Tordon (picloram) | | | | | - do - | 2500 | 48,000 |
| Trifuralin | P. californica | 4200 | D. pulex | 240 | - do - | 11 | 5600 |
| Vernam[5] (vernolate) | | | | | - do - | 5900 | 25,000 |



1 Stonefly bioassay was done at Denver, Colo., and at Salt Lake City, Utah. Denver tests were in soft water (35 mg/l TDS), non-aerated, 60 F. Salt Lake City tests were in hard water (150 mg/l TDS), aerated, 48-50 F. Response was death.

2 Daphnia pulex and Simocephalus serrulatus bioassay was done at Denver, Colo., in soft water (35 mg/l TDS), non-aerated, 60 F. Daphnia magna bioassay was done at Pennsylvania State University in hard water (146 mg/l TDS), non-aerated, 68 F. Respone was immobilization.

3 Fish bioassay was done at Denver, Colo., and at Rome N.Y. Denver tests were with 2-inch fish in soft water (35 mg/l TDS), non-aerated, trout at 55 F.; other species at 65 F. Rome tests were with 2-2½ inch fish in soft water (6 mg/l TA: pH 5.85-6.4), 60 F. Response was death.

4 Gammarus bioassay was done at Denver, Colo., in soft water (35 mg/l TDS), non-aerated, 60 F. Response was death.

5 Becomes bound to soil when used according to directions, but highly toxic (reflected in numbers) when added directly to water.

## 3 WATER QUALITY CRITERIA FOR INDUSTRIAL WATER SUPPLIES (IWS)

Desired water quality criteria are tabled for the major industrial classifications as follows:

| | |
|---|---|
| Brewing and Soft Drinks | — IWS-1 |
| Chemical and Allied Products | — IWS-2 |
| Industrial Cooling | — IWS-3 |
| Food Processing | — IWS-4 |
| Electroplating and Metal Finishing | — IWS-5 |
| Iron and Steel | — IWS-6 |
| Petroleum | — IWS-7 |
| Pulp and Paper | — IWS-8 |
| Leather Tanning and Finishing | — IWS-9 |
| Textiles | — IWS-10 |

While the values listed should not normally be exceeded, these water quality criteria can vary considerably for the same industrial process depending on factors such as the technological age of plant design.

A raw surface water and/or ground water supply which is used by many different industries may not satisfy the widely varying criteria for each use. However, water treatment technology in its present state of development permits the utilization of surface water of literally any available quality to produce water of any desired quality at the point of use in industry.

Most industries located on municipal water supply systems find the quality of water provided to be satisfactory. If the water quality requirements of an industry are such that water of higher quality than that provided by the municipality is required for specific process use, the industry generally accepts the additional costs involved to produce the higher quality water.

### TABLE IWS-1

### WATER QUALITY CRITERIA FOR THE BREWING AND SOFT DRINK INDUSTRIES

(Unless otherwise indicated, units are mg/l)

| Characteristic | Concentration |
|---|---|
| Alkalinity ($CaCO_3$) | 85 |
| pH, units | (1) |
| Hardness ($CaCO_3$) | (1) |
| Chloride (Cl) | 250[2] |
| Sulphate ($SO_4$) | 250[2] |
| Iron (Fe) | 0.3[3] |
| Manganese (Mn) | 0.05 |
| Fluoride (F) | 1[3] |
| Dissolved solids | (1) |
| Organics: carbon chloroform extract (CCE) | 0.15[3] |
| Coliform bacteria, count/100 ml | (3) |
| Colour, units | 5[4] |
| Taste, threshold number | (4, 5) |
| Odour, threshold number | (4, 5) |

(1) Controlled by treatment for other constituents.
(2) For brewing, value should not exceed 100 mg/l.
(3) Not greater than OWRC Drinking Water Objectives.
(4) In general, public water supplies are given conventional treatment such as coagulation, filtration and chlorination. Any additional requirement for higher quality, for example, deionized water, is the responsibility of the industry. To ensure low organic content, activated carbon treatment is used by industry.
(5) Zero, not detectable by test.

### TABLE IWS-2

### WATER QUALITY CRITERIA FOR THE CHEMICAL AND ALLIED PRODUCTS INDUSTRIES*

(Unless otherwise indicated, units are mg/l)

| Characteristic | Concentration[1] |
|---|---|
| Alkalinity (as $CaCO_3$) | 150 |
| Iron (Fe) | 0.3 |
| Manganese (Mn) | 0.1 |
| Calcium (Ca) | 50 |
| Magnesium (Mg) | 25 |
| Bicarbonate ($HCO_3$) | 250 |
| Sulphate ($SO_4$) | 250 |
| Chloride (Cl) | 250 |
| Nitrate ($NO_3$) as N | 10 |
| Hardness (as $CaCO_3$) | 250 |
| pH, units | 6.5-8.5 |
| Dissolved solids | 750 |
| Silica | 50 |
| Colour, units | 20 |
| Suspended solids | 15 |

* Industries include the manufacture of synthetic rubber, plastics, fertilizers, soap and detergents, organic and inorganic chemicals, etc.
(1) Because of the varying requirements of the many uses in the vast number of chemical industries, more stringent restrictions are placed on several of the above noted characteristics. In some cases, any concentration can be handled, while in others, the raw water is accepted as received provided it meets total solids or other limiting values. The above concentrations are suggested guidelines that should be suitable for the majority of uses in the chemical industry.

### TABLE IWS-3

### WATER QUALITY CRITERIA FOR COOLING WATER*

(Unless otherwise indicated, units are mg/l)

| Characteristic | Concentration |
|---|---|
| Turbidity | 50 |
| Hardness | 50 |
| Iron | 0.5 |
| Manganese | 0.5 |



Cooling waters should have appropriate initial temperatures and should not deposit scale, be corrosive or encourage the growth of slimes. Among the constituents of natural water that may prove detrimental to its use for cooling purposes are hardness, suspended solids, dissolved gases, acids, oil and other organic compounds and slime-forming organisms.

### TABLE IWS-4

### WATER QUALITY CRITERIA FOR THE FOOD PROCESSING INDUSTRY

(Unless otherwise indicated, units are mg/l)

| Characteristic | Concentration |
|---|---|
| Alkalinity ($CaCO_3$) | 150 |
| pH, units | 6.5-8.5 |
| Hardness ($CaCO_3$) | 150 |
| Chloride (Cl) | 250 |
| Sulphate ($SO_4$) | 250 |
| Iron (Fe) | 0.2 |
| Manganese (Mn) | 0.2 |
| Chlorine (Cl) | (1) |
| Fluoride (F) | 1[2] |
| Silica ($SiO_2$) | 50 |
| Phenol | (3, 4) |
| Nitrate ($NO_3$) as N | 10[2] |
| Nitrite ($NO_2$) as N | (3) |
| Organics: | |
| Carbon chloroform extract (CCE) | 0.15 |
| Odour, threshold number | (3) |
| Taste, threshold number | (3) |
| Turbidity | (6) |
| Colour, units | 5 |
| Dissolved solids | 500 |
| Suspended solids | 10 |
| Coliform, count/100 ml | (6) |
| Total bacteria, count/100 ml | (7) |

(1) Process waters for food canning are purposely chlorinated to a selected, uniform level. An unchlorinated supply must be available for preparation of canning syrups.
(2) Waters used in the processing and formulation of foods for babies should be low in fluorides concentration. Also, because high nitrate intake is alleged to be involved in infant illnesses, the concentration of nitrates in waters used for processing baby foods should be low.
(3) Zero, not detectable by test.
(4) Because chlorination of food processing waters is a desirable and widespread practice, the phenol content of intake waters must be considered. Phenol and chlorine in water can react to form chlorophenol, which even in trace amounts can impart a medicinal off-flavour to foods.
(5) Maximum permissible concentration may be lower depending on type of substance and its effect on odour and taste.
(6) As required by Ministry Drinking Water Objectives
(7) The total bacterial count must be considered as a quality requirement for waters used in certain food processing operations. Other than aesthetic considerations, high bacterial concentration in waters coming in contact with frozen foods may significantly increase the count per gram for the food. Waters used to cool heat-sterilized cans or jars of food must be low in total count for bacteria to prevent serious spoilage due to aspiration of organisms through container seams. Chlorination is widely practised to assure low bacterial counts on container cooling waters.

## WATER QUALITY CRITERIA FOR THE ELECTRO-PLATING AND METAL FINISHING INDUSTRIES — IWS-5

Plating-room processes that utilize water include the stripping or pickling operations, cleaning by organic solvents or alkaline solutions, rinsing, and electrochemical plating. For acid stripping or for alkaline cleaning, the quality of water used in the baths is seldom critical, for the added chemicals far outweigh the natural constituents of the water. Hardness of water may be detrimental when soaps or alkaline cleaning agents are used

For rinsing and for plating, water quality is frequently a major problem. High quality water is of primary importance to assure satisfactory finished work. For decorative plating, water spots and stains may necessitate reworking, wiping, buffing, and other laborious operations. Before the application of any organic corrosion-resistant coating, it is almost a necessity to use demineralized water in the final rinse, in order to achieve adhesion of the coating. A high concentration of dissolved solids is especially detrimental in rinse waters.

In plating baths, iron, aluminum, calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulphide, sulphite, sulphate, fluoride, chloride, silicate, copper, and lead have been reported to cause difficulties under certain conditions. Considerable evaporation occurs from plating baths and hence the ions present in the make-up water are concentrated to the extent that they are troublesome.

Calcium and magnesium are especially troublesome in plating baths, for they tend to precipitate to form scale on the heated surface or a sludge in the water. There is a probability of these precipitates being included in the electro-deposit, causing pits, porosity, and roughness. Magnesium may also reduce the "throwing power" in chromium baths, but on the other hand, magnesium sulphate is sometimes added to nickel-plating baths to produce softer deposits, to minimize certain types of pitting, and to increase throwing power.

Sodium and potassium are generally not harmful in plating operations, although sodium may cause brittle deposits in nickel baths or reduce the throwing power in chromium solutions. Iron is one of the most troublesome pollutants of many plating operations. In a nickel-sulphate bath, it may cause hazy, streaked, pitted, or brittle deposits; in acid copper solutions, it produces rough deposits; in chromium baths, it reduces the throwing power; in

cadmium cyanide, it causes hazy deposits; in silver cyanide, stained deposits; and in zinc sulphate baths it lowers the plating efficiency and the protective value of the coating.

Among the anions, bicarbonates are detrimental in heated alkaline baths, for they tend to be converted to carbonates and accelerate the precipitation of calcium. Moreover, they buffer the water and require higher dosages of acid or alkali to obtain the desired pH value. Chlorides have been reported to cause rough, modular, iridescent, and crystalline deposits in cadmium, copper, silver, and tin baths respectively. Organic substances reduce chromium, and cause rough, hazy, streaked, coloured, or pitted deposits under various conditions. Colour and turbidity are similarly objectionable.

Abstracted from "Water Quality Criteria", 2nd Edition, State Water Quality Control Board, California, Publication No. 3-A

**TABLE IWS-6**

**WATER QUALITY CRITERIA FOR THE IRON AND STEEL INDUSTRY**

(Unless otherwise indicated, units are mg/l)

| Characteristic | Quenching, hot rolling, gas cleaning | Cold rolling | Selected rinse waters | |
|---|---|---|---|---|
| | | | Softened | Demineralized |
| Suspended solids | 25 | 10 | (2) | (2) |
| Dissolved solids | (1) | (1) | (1) | (2) |
| Alkalinity ($CaCO_3$) | (3) | (3) | (3) | (2) |
| Hardness ($CaCO_3$) | (3) | (3) | 100 | (2) |
| pH, units | 6.0-9.0 | 6.0-9.0 | 6.0-9.0 | (3) |
| Chloride (Cl) | 150 | 150 | 150 | (2) |
| Dissolved oxygen ($O_2$) | (4) | (4) | (4) | (4) |
| Temperature, °F | 100 | 100 | 100 | 100 |
| Oil | (1) | (2) | (2) | (2) |
| Floating material | (1) | (2) | (2) | (2) |

(1) Accepted as received if meeting total solids or other limiting values.
(2) Zero, not detectable by test.
(3) Controlled by treatment for other constituents.
(4) Minimum to maintain aerobic conditions.



**TABLE IWS-7**

**WATER QUALITY CRITERIA FOR THE PETROLEUM INDUSTRY**

(Unless otherwise indicated, units are mg/l)

| Characteristic | Concentration |
|---|---|
| Silica ($SiO_2$) | (1) |
| Iron (Fe) | 1 |
| Calcium (Ca) | 75 |
| Magnesium (Mg) | 25 |
| Bicarbonate ($HCO_3$) | (1) |
| Sulphate ($SO_4$) | (1) |
| Chloride (Cl) | 200 |
| Fluoride (F) | (1) |
| Nitrate ($NO_3$) as N | (1) |
| Dissolved solids | 750 |
| Suspended solids | 10 |
| Hardness ($CaCO_3$) | 350 |
| Noncarbonate hardness ($CaCO_3$) | 70 |
| Colour, units | (1) |
| pH, units | 6.0-9.0 |

(1) Accepted as received if meeting total solids or other limiting values.

**TABLE IWS-8**

**WATER QUALITY CRITERIA FOR THE PULP AND PAPER INDUSTRY**

(Unless otherwise indicated, units are mg/l)

| Characteristic | Mechanical Pulping | Chemical Pulp and Paper | |
|---|---|---|---|
| | | Unbleached | Bleached |
| Silica ($SiO_2$) | (1) | 50 | 50 |
| Aluminum (Al) | (1) | (1) | (1) |
| Iron (Fe) | 0.3 | 1.0 | 0.1 |
| Manganese (Mn) | 0.1 | 0.1 | 0.05 |
| Zinc (Zn) | (1) | (1) | (1) |
| Calcium (Ca) | (1) | 20 | 20 |
| Magnesium (Mg) | (1) | 10 | 10 |
| Sulphate ($SO_4$) | (1) | (1) | (1) |
| Chloride (Cl) | 500 | 200 | 200 |
| Dissolved solids | (1) | (1) | (1) |
| Suspended solids | (1) | 10[2] | 10[2] |
| Hardness ($CaCO_3$) | (1) | 100 | 100 |
| pH, units | 6.0-9.0 | 6.0-9.0 | 6.0-9.0 |
| Colour, units | 30 | 30 | 10 |
| Temperature, °F | (1) | (1) | 95 |

(1) Accepted as received if meeting total solids or other limiting values.
(2) No gritty or colour-producing solids.

TABLE IWS-9

WATER QUALITY CRITERIA FOR THE LEATHER TANNING AND FINISHING INDUSTRY

(Unless otherwise indicated, units are mg/l)

| Characteristic | Tanning Processes | General Finishing Processes | Colouring |
|---|---|---|---|
| Alkalinity ($CaCO_3$) | (1) | 130 | 130 |
| pH, units | 6.0-8.0 | 6.0-8.0 | 6.0-8.0 |
| Hardness ($CaCO_3$) | 150 | (2) | (3, 4) |
| Calcium (Ca) | 60 | (2) | (3, 4) |
| Chloride (Cl) | 250 | 250 | (5) |
| Sulphate ($SO_4$) | 250 | 250 | (5) |
| Iron (Fe) | 0.3 | 0.3 | 0.1 |
| Manganese (Mn) | 0.2 | 0.2 | 0.01 |
| Organics: | | | |
| Carbon chloroform extract (CCE) | (5) | 0.2 | (3) |
| Colour, units | 5 | 5 | 5 |
| Coliform bacteria, count/100 ml | (6) | (6) | (5) |
| Turbidity | (3) | (3) | (3) |

(1) Accepted as received if meeting total solids or other limiting values.
(2) Lime softened.
(3) Zero, not detectable by test.
(4) Demineralized or distilled water.
(5) Concentration not known.
(6) OWRC Drinking Water Objectives.

TABLE IWS-10

WATER QUALITY CRITERIA FOR THE TEXTILE INDUSTRY

(Unless otherwise indicated, units are mg/l)

| Characteristic | Sizing Suspension | Scouring | Bleaching | Dyeing |
|---|---|---|---|---|
| Iron (Fe) | 0.3 | 0.1 | 0.1 | 0.1 |
| Manganese (Mn) | 0.05 | 0.01 | 0.01 | 0.01 |
| Copper (Cu) | 0.05 | 0.01 | 0.01 | 0.01 |
| Dissolved solids | 100 | 100 | 100 | 100 |
| Suspended solids | 5 | 5 | 5 | 5 |
| Hardness ($CaCO_3$) | 25 | 25 | 25 | 25 |
| pH, units: | | | | |
| Cotton | 6.5-10.0 | 9.0-10.5 | 2.5-10.5 | 7.5-10.0 |
| Synthetics | 6.5-10.0 | 3.0-10.5 | (1) | 6.5-7.5 |
| Wool | 6.5-10.0 | 3.0-5.0 | 2.5-5.0 | 3.5-6.0 |
| Colour, units | 5 | 5 | 5 | 5 |

(1) Not applicable.



## 4 CRITERIA FOR PUBLIC WATER SUPPLIES (PWS)

Criteria are given for public and private supplies from both surface and ground water sources.

Public supplies include water systems operated by municipalities, public utilities, industries, commissions, commercial establishments, etc. where competent operation of the water supply system is provided.

Private supplies include water systems operated by personnel who may not have the necessary technical or mechanical expertise.

### PWS-1 Criteria for Public Surface Water Supplies

Since treatment processes exist which can convert any raw water (with a few minor exceptions) to potable water, it is necessary to define a commonly accepted treatment system which can produce a potable water at a reasonable cost. For the purposes of these criteria, such a system has been defined to consist of coagulation, flocculation, sedimentation and rapid sand filtration; the use of chemicals is restricted by definition to the commonly used coagulants and chlorine for disinfection.

Two types of criteria have been established, namely the Permissible Criteria and the Desirable Criteria (Table PWS-1). Waters meeting both of these criteria are acceptable for treatment by the defined treatment process stated above. Waters meeting the Desirable Criteria provide for a greater margin of safety.

It should be borne in mind that the values given under the Permissible Criteria cannot be considered as maximum single sample values. These criteria should not be exceeded over substantial portions of time. If this should occur, then it will become necessary to determine the cause and initiate corrective action. The frequency and variety of sampling should be based on the findings of a comprehensive pollution survey.

## TABLE PWS-1

## WATER QUALITY CRITERIA FOR PUBLIC SURFACE WATER SUPPLIES

(Unless otherwise indicated, units are mg/l)

| Constituent or Characteristic | Permissible Criteria | Desirable Criteria |
|---|---|---|
| **Physical** | | |
| Colour (platinum-cobalt) | 75 units | < 5 units |
| Odour | Readily removable by defined treatment | Absent |
| Turbidity | — do — | Absent |
| Temperature | 85°F | Pleasant tasting |
| **Inorganic Chemicals** | | |
| Ammonia | 0.5 (as N) | < 0.01 |
| Arsenic* | 0.05 | Absent |
| Barium* | 1.0 | Absent |
| Boron* | 1.0 | Absent |
| Cadmium* | 0.01 | Absent |
| Chloride* | 250 | < 25 |
| Chromium* (hexavalent) | 0.05 | Absent |
| Copper* | 1.0 | Virtually absent |
| Dissolved Oxygen | ≥ 4 (monthly mean)<br>≥ 3 (individual sample) | Near saturation |
| Fluoride* | See footnote (1) | 1.0 |
| Hardness* | Acceptable levels will vary with local hydrogeologic conditions and consumer acceptance. | |
| Iron (filterable) | 0.3 | Virtually absent |
| Lead* | 0.05 | Absent |
| Manganese* (filterable) | 0.05 | Absent |
| Nitrate plus Nitrite* | 10 (as N) | Virtually absent |
| pH range | 6.0 - 8.5 units | Least amount of interference with treatment process |
| Phosphorus* (phosphates) | Not encourage growth of algae or interfere with treatment process | |
| Selenium* | 0.01 | Absent |
| Silver* | 0.05 | Absent |
| Sulphate* | 250 | < 50 |
| Total Dissolved Solids* (filterable residue) | 500 | < 200 |
| Uranyl Ion* | 5 | Absent |
| Zinc* | 5 | Virtually absent |
| **Organic Chemicals**(2) | | |
| Carbon chloroform extract* (CCE) | 0.15 | < 0.04 |
| Cyanide* | 0.20 | Absent |
| Methylene blue active substances* | 0.5 | Virtually absent |
| Oil and grease* | Virtually absent | Absent |



Table PWS-1 (cont.)

| Constituent or Characteristic | Permissible Criteria | Desirable Criteria |
|---|---|---|
| Pesticides: | | |
| Aldrin* | 0.017 | — do — |
| Chlordane* | 0.003 | — do — |
| DDT* | 0.042 | — do — |
| Dieldrin* | 0.017 | — do — |
| Endrin* | 0.001 | — do — |
| Heptachlor* | 0.018 | — do — |
| Heptachlor epoxide* | 0.018 | — do — |
| Lindane* | 0.056 | — do — |
| Methoxychlor* | 0.035 | — do — |
| Organic phosphates plus carbamates* | 0.1 | — do — |
| Toxaphene* | 0.005 | — do — |
| Herbicides: | | |
| 2,4-D plus 2,4,5-T, plus 2,4,5-TP* | 0.1 | — do — |
| Phenolic Substances* | Virtually absent | — do — |
| **Radioactivity** | (pc/l) | (pc/l) |
| Gross beta* | 1,000 | < 100 |
| Radium-226* | 3 | < 1 |
| Strontium-90* | 10 | < 2 |
| **Microbiological** (3) | | |
| Coliform organisms (at 35°C) | 5,000/100 ml | < 100/100 ml |
| Fecal coliforms (44.5°C) | 500/100 ml | < 10/100 ml |
| Fecal streptococci (35°C) | 50/100 ml | < 1/100 ml |
| Total Bacteria (20°C) | 100,000/100 ml | < 1,000/100 ml |
| Clostridia (in water) (35°C) | 50/100 ml | 0/100 ml |

* The defined treatment process has little effect on the constituents.

(1)

| Annual Avg. of Max. Daily Air Temp. F. | Recommended Limit for Fluoride mg/l |
|---|---|
| 50.0 to 53.7 | 1.7 |
| 53.8 to 58.3 | 1.5 |
| 58.4 to 63.8 | 1.3 |

(2) Organic chemicals should not be present in concentrations as to cause adverse tastes and odours which cannot be removed by the defined treatment and/or by chlorination only.

(3) A monthly geometric mean of the results of raw water samples collected on a weekly basis (minimum of one sample per week) should be less than the numbers given under the Permissible Criteria column. These figures do not imply a relationship between bacterial groups.

### PWS-2 Criteria for Public Ground Water Supplies

With the exception of dissolved oxygen, fluorides and microbiological criteria, the water quality criteria for surface water apply to ground water supplies.

For fluorides, hydrogen sulphide and pollution indicator organisms, the following apply to ground water supplies:

| | Permissible Criteria | Desirable Criteria |
|---|---|---|
| | (Unless otherwise indicated, units are mg/l) | |
| Fluoride | 2.4 | 1.0 |
| Hydrogen Sulphide | 0.1 | Absent |
| Pollution Indicator Organisms | Coliform and other pollution indicator organisms should be virtually absent from all ground water supplies. | |

It is considered desirable to provide the maximum of treatment — chlorination — for all ground water supplies. This measure ensures that nuisance organisms which exist in virtually all waters do not get the opportunity to develop a foothold in a water distribution system and thereby create objectionable conditions.

### PWS-3 Criteria for Private Water Supplies

The raw water available to private supplies such as individual dwellings, cottages, farms, etc, must be of such quality that it can be used in the raw state or be made acceptable for use with a minimum of treatment limited to disinfection, filtration and/or softening. Economic considerations and lack of technical/mechanical expertise will prohibit the use of raw water supplies that require extensive treatment.

Some surface supplies have turbidities, colour and other undesirable constituents in excess of what can be used effectively in home or farm operations. Some ground water supplies (wells and springs) harbour objectionable gases, nuisance bacteria, in addition to having high concentrations of iron and being highly mineralized. The initial approach in establishing a private water supply should be to explore the ground water potential from the aspects of both quality and quantity. In many instances, deficiencies in ground water quality can be offset at a relatively low cost compared to that for surface waters.

Criteria for private water supplies are identical to the surface water criteria for public water supplies, with the exception of fluorides, hydrogen sulphide, physical and microbiological characteristics. For fluorides and hydrogen sulphide, the applicable criteria appear in Section PWS-2.

**Physical Criteria:**

The water supply should be substantially free from substances offensive to sight, taste or smell. Threshold odour values in excess of three units are generally considered objectionable.

Colour in the water supply should not exceed 15 units (platinum-cobalt scale).

Turbidity should be less than five units. Turbidities of up to 20 units may be removed relatively easily by sand or diatomaceous earth filters.

**Microbiological Criteria:**

| Microorganisms | Permissible Criteria | | Desirable Criteria |
|---|---|---|---|
| | Chlorination only | Chlorination & Filtration | No Treatment |
| Coliforms (35°C) | 100/100 ml | 400/100 ml | 0/100 ml |
| Fecal Coliforms (44.5°C) | 10/100 ml | 40/100 ml | 0/100 ml |
| Enterococci (35°C) | 1/100 ml | 4/100 ml | 0/100 ml |
| Total Bacteria (20°C) | 1000/100 ml | 4000/100 ml | 10/100 ml |
| Clostridia (in water) (35°C) | 0/100 ml | 4/100 ml | 0/100 ml |

Raw water samples should be collected at least monthly. The Geometric Mean of sample results should not exceed the values given in the table above.



## 5 CRITERIA OF WATER QUALITY FOR AESTHETICS AND RECREATION (A & R)

All surface waters should be capable of supporting life forms of aesthetic value. The positive aesthetic and recreational values of water should be attained through continuous enhancement of water quality. Surface waters should be of such quality as to provide for the enjoyment of recreational activities such as hunting and fishing which are based on the utilization or consumption of fish, waterfowl and other forms of life.

The aesthetic and recreational values of unique or outstanding waters should be recognized and protected by development of appropriate water quality standards for each individual case. To retain or establish unspoiled wilderness values, it may be necessary to control access by mechanized methods of transportation.

General criteria for recreation and aesthetic use and specific criteria for total body contact recreation follow:

### A & R-1 General Criteria for Recreation and Aesthetics

Surface waters should be free of substances attributable to discharge of waste or land drainage which may impair aesthetic or recreational use, as follows:

(1) Materials that will settle to form objectionable deposits.

(2) Floating debris, oil, scum and other matter.

(3) Substances producing objectionable colour, odour, taste or turbidity.

(4) Materials, including radionuclides, in concentrations or combinations which are toxic or which produce undesirable physiological responses in humans, fish and other life and plants.

(5) Substances, including nutrients, and conditions, including temperature, or combinations thereof in a degree or concentration which produces undesirable types or abundance of aquatic life.

### A & R-2 Criteria for Total Body Contact Recreation

Surface waters for total body contact recreational use should be free of substances attributable to discharge of waste or land drainage as follows:

(1) Materials which will cause the pH to change beyond the range 6.5-8.3.

(2) Materials which will obscure visibility in the water. In designated swimming and diving areas, clarity should be such that a Secchi Disc on the bottom is visible from the surface.

(3) Conditions which will cause the water temperature to exceed 85°F.

(4) Microbiological Criteria
Water used for body contact recreational activities should be free from pathogens including any bacteria, fungi or viruses that may produce enteric disorders or eye, ear, nose, throat and skin infections. Where ingestion is probable, recreational waters can be considered impaired when the coliform, fecal coliform, and/or enterococcus geometric mean density exceeds 1000, 100 and/or 20 per 100 ml respectively, in a series of at least ten samples per month, including samples collected during weekend periods.

If these criteria are exceeded, it will become necessary to determine the cause and initiate corrective action.

When evaluating a given area of water for recreational use, the appropriate numbers of samples, and the choice of tests to be performed should be determined by consultation between sampler and analyst, prior to sampling. An effort should be made to increase utilization of the fecal coliform and enterococcus tests since these presently appear to be the more relevant guides to the bacterial quality of bathing waters.

## GLOSSARY OF TERMS

**Bioassay** — A controlled laboratory procedure which subjects live aquatic organisms to various environmental stresses.

**Effluent Requirements** — Numerical or verbal descriptions of the quality of a waste or drainage effluent at the point of discharge to a receiving water body, land disposal site or waste disposal well.

**Eutrophication** — The increase in the nutrient content of the natural waters of a lake or other body of water.

**Geometric Mean** — The nth root of the product of n observations. The equation for the geometric mean ($G_x$) can be expressed as:

$$G_x = \sqrt[n]{X_1 . X_2 . X_3 . \ldots\ldots\ldots X_n}$$

$$\text{or } G_x = \text{antilog}\left(\frac{\log X_1 + \log X_2 + \ldots . \log X_n}{n}\right)$$

**Land Drainage** — Water that has drained from the land surface naturally or through man-made drainage systems.

**Milligrams per Litre (mg/l)** — A unit of measure expressing the concentration of a substance in a solution.

**Milligram equivalents per litre (mg. eq/l)** — A unit indicating the chemical equivalence of ions; derived by dividing the concentration of an ion in milligrams per litre by the combining weight of that ion.

$$\text{Note: combining weight} = \frac{\text{atomic or molecular weight of ion}}{\text{ionic charge}}$$

**Oligotrophic** — Waters with a small supply of nutrients and hence a small organic production; usually having abundant dissolved oxygen at all depths.

**Photosynthetic (adj.)** — Relating to the process by which the chlorophyl-bearing cells of green plants convert carbon dioxide ($CO_2$) and water ($H_2O$) into sugar ($C_6H_{12}O_6$) and oxygen ($O_2$) in the presence of light.

**Raw Water** — Surface or ground water, prior to treatment.

**Waste** — Liquid carrying unwanted materials or compounds resulting from human activities or enterprises to a point of discharge. The mixture may or may not have received treatment.

**Water Quality Criteria** — Numerical or verbal descriptions of the quality of water required for particular uses.

**Water Quality Standards** — Numerical or verbal descriptions of the quality of water required for a variety of uses in a given drainage system.



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# A P P E N D I X  6

## Projects subject to
## The Environmental Assessment Act

# APPENDIX 6

## IV LIST OF PROJECTS REQUIRING AN ENVIRONMENTAL ASSESSMENT

### A) Ministry of Colleges and Universities

New campuses for community colleges or for universities.

### B) Ministry of the Environment

1. New sewage treatment plants and the associated sewage collection and transmission works.

2. New water treatment works and the associated water distribution works.

3. a) expansions to existing water works and sewage works;

   b) process changes.

4. Lagoons or expansions to lagoons.

5. New dump or landfilling site.

6. Resource Recovery projects, (excluding feasibility studies and the experimental plants being built in North York and the Watts from Waste project.)

### C) Ministry of Government Services

1. Capital Construction or Lease - Purchase Projects having an estimated completion cost of more than $1 million, carried out by the Capital Development Division, MGS.

The following list gives the main project types within this category:

a) Courthouses

b) Laboratories

c) Administrative offices

d) Garages and service centres for vehicles and vehicle inspection stations

e) Land registry offices

f) Airports including landing strips, wateraerodromes or heliports

Condition: Any of the projects within this category, for which a Definitive Estimate and a Definitive Report have been completed within 30 days of Proclamation of the Act are exempt.

2. The activity of leasing property on behalf of Ministries and agencies of the Ontario Government where the proposed use of the leased property is substantially different from the use prior to the date of the proposed lease.

3. The activity of purchasing or optioning land or land rights for future Government uses:

   a) where the proposed interim land management to be carried out by the Ministry of Government Services will substantially change the use of the lands prior to the date of the purchase;

   b) where the proposed use will require the submission of an environmental assessment.

D) Ontario Hydro

1. Transmission lines of 115kV or more and over 2Km in route length.

2. Transmission line taps of 115kV or more and longer than 2Km.

3. New transformer, distribution and switching stations capable of operation at 115kV or more.

4. Upgradings, rehabilitation or expansion of existing transformer stations or switching stations to more than 230kV.

5. Rehabilitation or expansion of transformer stations or switching stations involving extension to the site.

6. New generating stations and new heavy water plants, excluding those which are specifically exempted.

7. Site acquisition for new generating stations or heavy water plants.

8. Combustion, turbine and diesel generators at new sites.

9. Steam or hot water distribution systems for district heating.

10. Diversion of watersheds.

11. Communications towers.

12. Change of existing right-of-way and replacement of poles and towers except for emergencies.
    Note: Specific transmission, distribution, transformer and

switching stations are exempt. Details are available in the exemption orders. Also, many of the above projects are exempt until April 1, 1979 to allow time for an environmental assessment to be prepared for a class of undertakings.

E) Ministry of Industry and Tourism

1. The development of attractions and destination resorts.

2. Implementation of tourism development plans excluding those substantially underway by January 1, 1977, and provided that a list of those excluded be filed with the Director of the Environmental Approvals Branch by February 1, 1977.

3. The development of lands for industrial purposes excluding the selection and acquisition of a site for the Edwardsburgh heavy industrial development and excluding the planning of Northam, Huron and Sheridan Industrial Parks.

F) Ministry of Natural Resources

1. The following projects are included except where implementation of the plan has been commenced prior to July 1, 1978:

   The activity of implementing plans in connection with:

   a) Road maintenance

   b) Forest management

   c) Seismic exploration and drilling for resource exploration

2. The following projects are included except where the construction or implementation of the undertaking has been commenced prior to July 1, 1979:

   a) Dams, dykes, fishways, ponds, docks, dredging, shoreline and bank stabilization and water level control.

   b) Landfill sites, dumps and transfer stations regulated under The Environmental Protection Act, 1971.

   c) Access points to lakes and other facilities.

   d) Outdoor recreation trails, canoe routes.

   e) Rabies control in wildlife.

   f) Mineral management.

g) The control of nuisance species of plants and animals, including fish, birds and insects by trapping, chemicals, shooting, transplanting or habitat alteration.

h) Land use plans.

i) Great Lakes access plans.

j) Development of mining lands.

k) Upgrading facilities for Provincial Parks.

l) Cottage and camping sites.

m) The reclamation of lakes by the use of chemicals, mechanical devices or other methods.

n) Waterworks, sewage works and sewage systems.

o) Plans under the Algonquin Forestry Authority Act, 1974.

3. The following projects are included unless the construction o implementation of the undertaking has been commenced prior to July 31, 1977.

a) A management plan for a wildlife area or a sports fishery excluding the Lucknow River Fisheries Area Management Plan, the Hullet Wildlife Area Management Plan and The Lake St. Lawrence Wildlife Area Management Plan unless the undertakings have not been commenced prior to January 1, 1982.

b) A new road that is not part of or proceeded with another undertaking.

c) A new fish hatchery or a reconstruction of an existing one, excluding the Dorion Fish Hatchery.

d) The introduction of exotic fish species into a body of water or watercourse.

e) A new, upgraded or altered resource extraction facility in a provincial park.

f) A new site plan for a provincial park.

g) The implementation of Park Master Plans unless they are specifically exempted and provided that implementation has been commenced prior to July 31, 1977, for those that are specifically exempted.

4. Lake development plans excluding the plans specifically exempted in the exemption orders unless the implementation of these exempted plans has not been commenced prior to January 1, 1982.

(i) Ministry of Transportation & Communications

The following projects are included unless the construction is substantially completed by January 1, 1980:

1. New Routes
2. Major realignments
3. By-passes
4. Freeway upgrading - urban and rural
5. New interchanges - urban and rural
6. Widening of existing highways by adding additional lanes for through traffic - urban and rural
7. Adjustments to alignments, grades or cross-sections
8. Patrol yards
9. Vehicle inspection stations
10. Rest areas
11. Service centres
12. New or modified water crossings (when not included as part of any of the above projects)
13. The construction relating to the program of Remote Northern Communications, the construction being the physical erection of the towers, necessary guying, associated buildings and associated access unless the above is completed by January 1, 1980.
14. The activity of carrying out planning, design, provision and construction under that portion of the program of Remote Airport Construction consisting of the specific works listed in the exemption orders, unless construction of these projects will be substantially completed by January 1, 1980.

(ii) Toronto Area Transit Operating Authority or The Ontario Transportation Development Corporation

1. A new commuter rail line or station
2. Any extension or expansion of an existing commuter rail line excluding operational changes
3. A new or expanded yard or terminal for a computer rail line
4. A new or extended commuter bus route not on a public road

5. Expansion of commuter rail stations

6. New commuter bus stations, but not a passenger shelter

7. Specific construction works listed in the exemption orders unless the program of operations and construction is substantially completed by January 1, 1980.

(iii) Ontario Northland Transportation Commission or The Ontario Transportation Development Corporation

1. A new or extended ferry service

2. A new or expanded dock or ferry terminal

3. A new, extended or expanded rail line, yard or terminal

4. A new or expanded inter-city bus station, yard or terminal

5. New or expanded rail passenger stations

6. New or expanded inter-city truck yards or terminals

7. New or expanded bus routes not on public roads

8. The complete termination of rail passenger services on a route

9. Specific works listed in the exemption orders unless they are substantially completed by January 1, 1980

(iv) Ontario Northland Transportation Commission or Ontario Telephone Development Corporation

1. Overhead lines

2. Buried cables

3. Microwave towers and supports including power supplies

4. Remote microwave facilities

5. Antennae for electric or electromagnetic communication

H) Conservation Authorities

On September 1, 1977, Cabinet approved a regulation placing activities of Conservation Authorities (except those undertakings otherwise exempted) under the Act. Since there are no Conservation Authorities established north of 50° we will not elaborate further.

I) Ministry of Culture and Recreation

The only undertakings of potential significance to the area under construction by the Commission is the establishment of OAEC transmission towers. At this time, however, there are no towers proposed north of 50o.

J) Ministry of Northern Affairs

1. N.O.R.T. Roads

2. Undertakings implemented by MNA and not otherwise covered by an exemption or another Ministry.

K) Ministry of Treasury, Economics and Intergovernmental Affairs

The undertakings carried out by this Ministry are for the most part related to its Regional Priority Program, stemming from D.R.E.E. and are usually implemented via other lead agencies. TEIGA's lead agency north of 50o will be the Ministry of Northern Affairs.

# A P P E N D I X  7

Ontario Regulation 1009/76

REGULATION MADE UNDER
THE ENVIRONMENTAL ASSESSMENT ACT, 1975
ONTARIO REGULATION 1009/76
EFFECTIVE JANUARY 16, 1977

DESIGNATION

1.-(1) The enterprise or activity of Reed Ltd. or any company related to it by ownership or contract consisting of,

(a) the location, establishment and operation of integrated wood using manufactories, including a pulpmill, to be supplied with timber from a tract of land measuring approximately 18,983 square miles located in the territorial district of Kenora, Patricia Portion and Thunder Bay; and

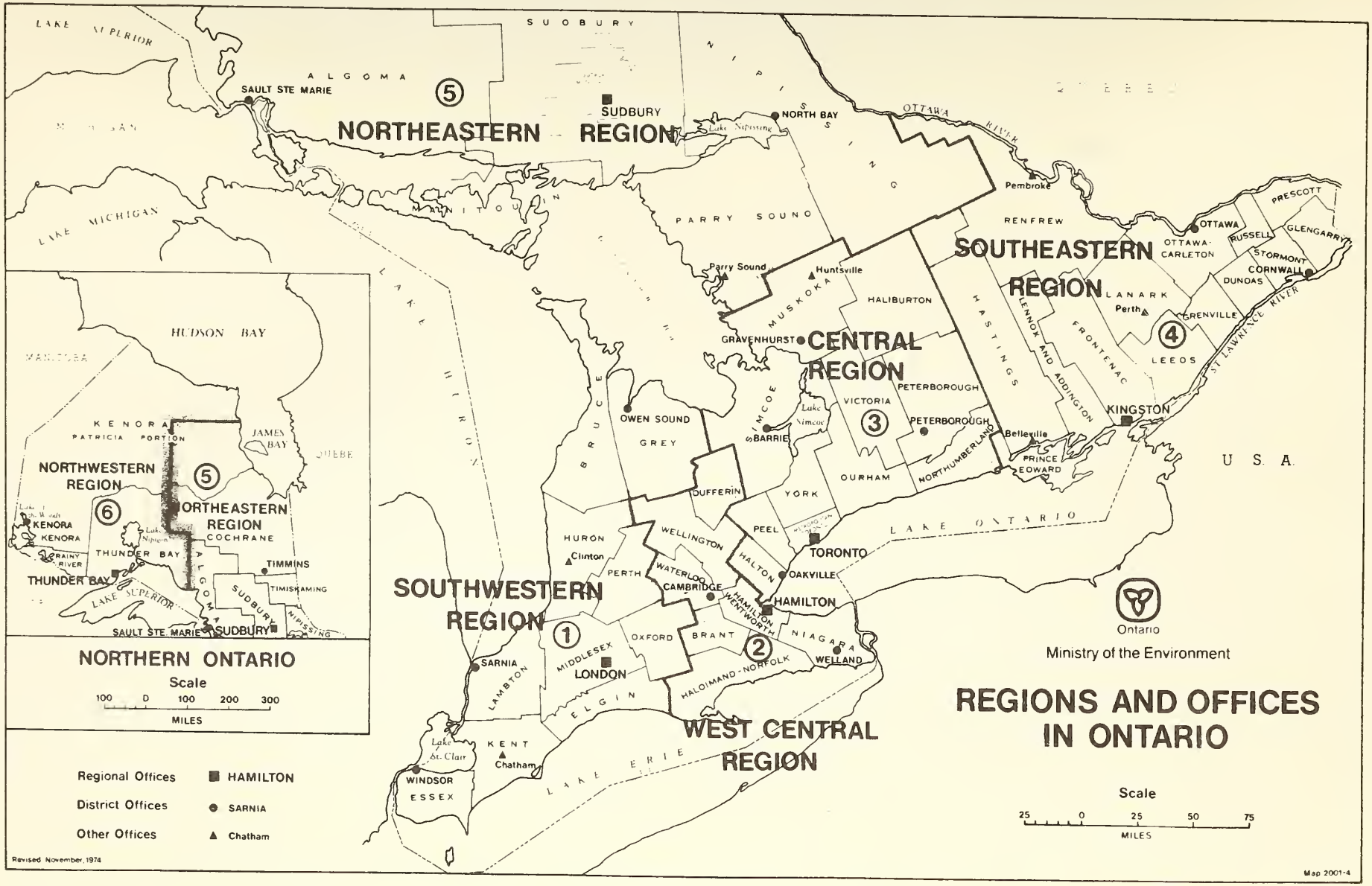
(b) the harvesting and supplying of timber from the tract referred to in clause a,

is defined as a major commercial or business enterprise or activity and the proposal, plan or program in respect thereof is designated as an undertaking to which the Act applies.

(2) The manufactories and the tract referred to in subsection 1 are referred to and described in a Memorandum of Understanding made the 26th day of October, 1976 between Her Majesty the Queen in right of Ontario as represented by the Minister of Natural Resources and Reed Ltd., a corporation amalgamated under the laws of Ontario and tabled in the Legislative Assembly on the 26th day of October, 1976.

# A P P E N D I X  8

Map Showing M.O.E. Regions and Offices in Ontario


NORTHEASTERN REGION
5
SUDBURY
NORTH BAY
SAULT STE MARIE
ALGOMA
SUDBURY
NIPISSING
PARRY SOUND
Parry Sound
Huntsville
MUSKOKA
HALIBURTON
GRAVENHURST
CENTRAL REGION
3
VICTORIA
PETERBOROUGH
PETERBOROUGH
Bellerille
PRINCE EDWARD
HASTINGS
LENNOX AND ADDINGTON
FRONTENAC
SOUTHEASTERN REGION
4
LANARK
Perth
GRENVILLE
LEEDS
KINGSTON
OTTAWA
OTTAWA-CARLETON
RUSSELL
PRESCOTT
GLENGARRY
STORMONT
CORNWALL
DUNDAS
RENFREW
Pembroke
OTTAWA RIVER
ST LAWRENCE RIVER
U S A
LAKE ONTARIO
LAKE ERIE
LAKE MICHIGAN
LAKE SUPERIOR
HURON
BRUCE
GREY
OWEN SOUND
SIMCOE
BARRIE
DUFFERIN
YORK
DURHAM
NORTHUMBERLAND
PEEL
TORONTO
HALTON
OAKVILLE
WELLINGTON
WATERLOO
CAMBRIDGE
PERTH
Clinton
HAMILTON
WENTWORTH
NIAGARA
WELLAND
BRANT
OXFORD
MIDDLESEX
LONDON
SARNIA
LAMBTON
ELGIN
KENT
Chatham
Lake St. Clair
WINDSOR
ESSEX
SOUTHWESTERN REGION
1
2
WEST CENTRAL REGION
HUDSON BAY
MANITOBA
ONTARIO
QUEBEC
KENORA
PATRICIA PORTION
JAMES BAY
NORTHWESTERN REGION
6
5
NORTHEASTERN REGION
COCHRANE
KENORA
RAINY RIVER
THUNDER BAY
THUNDER BAY
TIMMINS
TIMISKAMING
SUDBURY
SAULT STE MARIE
NORTHERN ONTARIO
Scale
100 0 100 200 300
MILES
Regional Offices
HAMILTON
District Offices
SARNIA
Other Offices
Chatham
Revised November, 1974
Ontario
Ministry of the Environment
REGIONS AND OFFICES IN ONTARIO
Scale
25 0 25 50 75
MILES
Map 2001-4

# A P P E N D I X  9

Data Base

# Appendix 9

## DATA BASE

This Appendix provides an outline of the data available from offices of the Ministry of the Environment. Most of the data listed is available from our Regional Offices, in Sudbury and Thunder Bay. Other data would be available from the appropriate Head Office Branches in Toronto.

Information in this Appendix is contained within the following headings: General; Present and Proposed Major Development; Waste Disposal; Air Monitoring; Water Monitoring; Sewage and Water Supply.

### (a) General

The Ministry of the Environment obtains, compiles and maintains large amounts of data with respect to the environment in Northern Ontario.

On the municipal side, the Ministry maintains files on all organized municipalities and many unorganized communities. Data on water and sewage services, waste disposal sites, review of plans and generally any information associated with environmental matters concerning the municipality are located in these files. Waste loadings to receiving streams from municipalities can be determined from the file information, as can the general adequacy of services provided. Where services have yet to be provided, there will often be pollution survey reports identifying problem areas, if they exist. In addition to

pollution abatement information, these files also contain detailed information on potable water quality, particularly where communal water supplies exist.

Information concerning industrial enterprises is also contained on files maintained by the Ministry. This information is made available to the public except where proprietary information is involved. The information generally available includes data on emissions and effluents from industry to the natural environment. The data is not normally available in summary report form except where air or water quality reports have been produced. Requests for such information are filled within the limits of the capability of Ministry staff to respond to requests.

The Ministry's Regional Offices operate many monitoring programs covering both the air and water environment.

Sampling of watercourses for major industrial or municipal effluent discharges is undertaken regularly. To a limited degree, staff also arrange for the monitoring of watersheds where significant development is proposed. Data from these studies include stream and groundwater quality and quantity data.

Staff are also involved in the collection of samples for air quality assessments in municipalities where there are major industrial air emission sources.

The Ministry was also involved in a Northern Ontario Water Resources survey in conjunction with Environment Canada during the period of 1964 to 1974. The objective of this survey was to determine the ground and surface water quantity, quality and availability in the northern watershed. The data is presently on record in the Ministry's central offices though a final report has not yet been issued.

Guidelines and objectives and other technical documents pertaining to the control of effluents from the pulp and paper and mining industries have been developed by the Industrial Section of the Pollution Control Branch. The Section also co-ordinates the development of policies relating to industrial matters and offers technical advice on industrial processes and pollution control to other Ministry branches.

As a result of these activities, substantial documentation on pollution control in the mining industry is available, and similar information, but to a much more limited degree, is available on the pulp and paper industry.

(b) Present and Proposed Major Industrial Activities in Northern Ontario, North of the 50th Parallel

A. Present Major Industrial Activities

1. Union Miniere Explorations and Mining Corporation Limited, Pickle Lake, Base Metal Mine and Mill Complex.

2. Stelco Mining Corporation Limited, Ear Falls, Base Metal Mine and Mill Complex.

3. The Steel Company of Canada Ltd., Griffith Mine, Ear Falls; Iron Mine, Mill, Pelletizing, and Reduction Complex.

4. Abitibi Lumber-Hudson Limited, Hudson, Sawmill.

5. Aquitaine Company of Canada, James Bay, offshore oil drilling. (Monitored by Federal Government).

B. Proposed Major Industrial Activities

1. Dofasco, proposed iron ore mine, concentrator and pelletizing operation at Nakina/Nipigon area (distant prospect).

2. Steep Rock Iron Mines Ltd., proposed iron ore mine, concentrator and pelletizing operation in Lake St. Joseph area (distant prospect).

3. Reed Ltd., New Kraft Mill, Ear Falls/Red Lake area.

4. Reed Ltd., Sawmill Complex, Ear Falls area.

5. Onakawana Development Limited, proposed development of lignite deposits.

6. Polar Gas Limited exploratory drilling for metals in James Bay Lowlands.

7. Amoco (Canada) Petroleum Company Ltd., Detour Lake, exploratory drilling for gold.

8. Ministry of Transportation and Communications, Moosonee access road has been studied.

(c) Waste Disposal

Waste disposal sites for refuse disposal are operated by all municipalities. The Ministry of Natural Resources operates in excess of 200 sites in unorganized and remote areas. The Ministry of the Environment maintains files on all sites at its Regional and District offices.

In addition, the following specialized waste reports are available:

The Hearst Wood Waste Study,
Solid Waste for Industrial Fuel, and
Methanol in Ontario.

These reports provide information relating to resource recovery processes available.

(d) Air Monitoring

The heaviest concentration of industries is located south of the 50th parallel. Thus, most monitoring activities are conducted in the centres where development has already occurred such as Thunder Bay, Marathon, Atikokan, Kenora, Dryden, Timmins, Kapuskasing, Sault Ste. Marie and Sudbury. Air monitoring programs may include dust fall jars, static sulphation plates, continuous $H_2S$ monitors, Hivol samplers, vegetation studies, moss bag exposures, and snow samples.

Air monitoring programs (north of 50) are conducted at Balmertown, Pickle Lake, Red Lake, Ear Falls, and Moose Factory.

Dustfall jar stations have been located at Balmertown and Moose Factory. Static sulphation plates are in place at Balmertown. Vegetation samples are collected at Balmertown and Pickle Lake. Moss bag exposures are conducted in Red Lake, while snow samples are taken at Red Lake, Ear Falls, and Pickle Lake.

Results of the air monitoring programs are available from the appropriate Regional office, or from the Air Resources Branch in Toronto.

(e) Water Monitoring Programs

All pulp and paper mills and base metal mines and mill complexes monitor wastewater discharges on a daily or weekly basis, and report their results monthly or quarterly to the Ministry. The frequency of monitor sampling and reporting as specified by the Ministry is based on effluent and environmental circumstances at individual sites. Wastewaters from other industries are also required to be monitored when an environmental problem has been associated with them.

For example, in the Northwestern Region, the following industries report to the Ministry on a regular basis:

American Can of Canada Ltd., Marathon Chlor-Alkali Plant
Reed Limited, Dryden, Chlor-Alkali Plant
Noranda Mines Limited, Manitouwadge
International Nickel Co. of Canada Ltd., Shebandowan Mine
Mattabi Mines Limited, Ignace
Sturgeon Lake Mines Ltd., Ignace
Selco Mining Corporation Ltd., Ear Falls
The Steel Co. of Canada Ltd., Griffith Mine, Ear Falls
Industrial Grain Products Ltd., Thunder Bay
Northern Wood Preservers Ltd., Thunder Bay
and all 10 pulp and paper mills.

To ensure dependability of the monitoring programs of the companies, Ministry staff inspect these plants and randomly sample the same effluents from time to time. The Ministry's checks to date essentially have confirmed the reporting by the companies concerned.

In the vicinity of Red Lake, six stations are maintained:

1. Howey Bay, 500 feet from shore on Red Lake.
2. Red Lake in the McKenzie Channel at the ferry crossing.
3. Balmer Creek at Balmer Lake outlet.
4. Balmer Creek, 500 feet upstream of the Chukuni River.
5. The Chukuni River downstream of Balmer Creek.
6. Snib Lake Creek at Snib Lake outlet.

Two stations are maintained at Ear Falls; one at English River at Manitou Falls and the other at Trout Lake River at Highway #105.

Two stations are maintained on the Wabigoon River, one upstream from Reed Limited at Dryden and one downstream of the company at Golf Course Road bridge.

The following tables list monitoring stations located throughout the North.

The following is a list of locations where water quality data have been collected 4 - 8 time per year for a period of 1 - 4 years and are available in DATA FOR NORTHERN ONTARIO WATER RESOURCES STUDIES (Water Resources Bulletins 1-1 to 1-5), as listed in the attached bibliography of reports and bulletins.

| LOCATION | LAT. | | LONG. | |
|---|---|---|---|---|
| NAME | DEG. | MIN. | DEG. | MIN. |
| RIVERS | | | | |
| **Albany River Basin** | | | | |
| Albany River | 51 | 33 | 88 | 33 |
| Balkam Creek | 50 | 11 | 86 | 43 |
| Brightsand River | 49 | 36 | 90 | 34 |
| Cat River | 51 | 11 | 91 | 36 |
| Cheepay River | 51 | 27 | 83 | 26 |
| Kawashkagama River | 50 | 26 | 87 | 09 |
| Kenogami River | 50 | 58 | 84 | 36 |
| Muswabik River | 51 | 32 | 85 | 05 |
| Opichuan River | 51 | 10 | 87 | 46 |
| Pashkokogan River | 51 | 02 | 90 | 12 |
| Shekak River | 49 | 45 | 84 | 24 |
| **Attawapiskat River Basin** | | | | |
| Attawapiskat River | 53 | 06 | 85 | 05 |
| Otoskwin River | 51 | 49 | 89 | 36 |
| Pineimuta River | 52 | 18 | 88 | 45 |
| **Moose River Basin** | | | | |
| Abitibi River | 50 | 36 | 81 | 25 |
| Kapuskasing River | 49 | 25 | 80 | 26 |
| Missinabi River | 49 | 37 | 83 | 16 |
| Moose River | 50 | 49 | 81 | 18 |
| **Severn River Basin** | | | | |
| Flanagan River | 52 | 49 | 93 | 27 |
| Morrison River | 53 | 48 | 91 | 50 |
| Sachigo River | 53 | 27 | 92 | 17 |
| Severn River | 55 | 22 | 88 | 19 |
| Shade River | 53 | 33 | 91 | 09 |

| LOCATION | LAT. | | LONG. | |
|---|---|---|---|---|
| NAME | DEG. | MIN. | DEG. | MIN. |
| Winisk River Basin | | | | |
| Asheweig River | 53 | 43 | 87 | 57 |
| Pipestone River | 52 | 34 | 90 | 14 |
| Winisk River | 54 | 31 | 87 | 14 |

The above river stations have been monitored for the following parameters: Silica, Iron, Calcium, Magnesium, Sodium, Potassium, Sulphate, Chloride, Fluoride, Boron, Total Phosphorus, Nitrate, Total Kjeldahl, Tannins and Lignins, Total Alkalinity, Total Hardness, Total Dissolved Solids, Specific Conductance, Colour, and Turbidity.

LAKES

| | | | | |
|---|---|---|---|---|
| Attawapiskat Basin | | | | |
| Attawapiskat Lake (Comp) | 52 | 15 | 87 | 55 |
| Attawapiskat Lake (Bot) | 52 | 15 | 87 | 55 |
| Streatfield Lake (Comp) | 52 | 08 | 85 | 55 |
| Moose Basin | | | | |
| Brunswick Lake (Comp) | 49 | 00 | 83 | 23 |
| Brunswick Lake (Bot) | 49 | 00 | 83 | 23 |
| Pierre Lake (Comp) | 49 | 31 | 80 | 44 |
| Pierre Lake (Bot) | 49 | 31 | 80 | 44 |
| Remi Lake (Comp) | 49 | 25 | 82 | 10 |
| Remi Lake (Bot) | 49 | 25 | 82 | 10 |
| Saganash Lake (Comp) | 49 | 04 | 82 | 35 |
| Shannon Lake (Comp) | 49 | 47 | 83 | 23 |
| Campbell Lake (Comp) | 50 | 18 | 82 | 13 |
| Kesagami Lake (Comp) | 50 | 28 | 80 | 15 |
| Marquis Lake (Comp) | 49 | 54 | 80 | 10 |
| Stringer Lake (Comp) | 50 | 11 | 80 | 53 |

| LOCATION | LAT. | | LONG. | |
|---|---|---|---|---|
| NAME | DEG. | MIN. | DEG. | MIN. |
| **Severn Basin** | | | | |
| Agusk Lake (Comp) | 54 | 38 | 89 | 30 |
| Big Trout Lake (Comp) | 53 | 45 | 90 | 00 |
| Big Trout Lake (Bot) | 53 | 45 | 90 | 00 |
| Big Trout Lake Bog (Comp) | 53 | 51 | 89 | 53 |
| Kaness Lake (Comp) | 52 | 31 | 92 | 30 |
| Kaness Lake (Bot) | 52 | 31 | 92 | 30 |
| North Spirit Lake (Comp) | 52 | 36 | 93 | 00 |
| North Spirit Lake (Bot) | 52 | 36 | 93 | 00 |
| Sandy Lake (Comp) | 53 | 00 | 93 | 00 |
| Sandy Lake (Bot) | 53 | 00 | 93 | 00 |
| Sandybank Lake (Comp) | 53 | 00 | 89 | 45 |
| **Winisk Basin** | | | | |
| Atikameg Lake (Comp) | 54 | 15 | 88 | 24 |
| Kasabonika Lake (Comp) | 53 | 35 | 88 | 30 |
| Shagamu Bog (Comp) | 55 | 05 | 87 | 04 |
| Shagamu Lake (Comp) | 55 | 05 | 87 | 05 |
| Wunnummin Lake (Comp) | 52 | 55 | 89 | 15 |
| Wunnummin Lake (Bot) | 52 | 55 | 89 | 15 |
| **Albany Basin** | | | | |
| Blue Goose Lake (Comp) | 50 | 00 | 84 | 08 |
| Bluejay Lake (Comp) | 50 | 02 | 84 | 08 |
| Bluejay Lake (Bot) | 50 | 02 | 84 | 08 |
| Bog Lake (Comp) | 51 | 31 | 85 | 44 |
| Keezhik Lake (Comp) | 54 | 45 | 88 | 30 |
| Keezhik Lake (Bot) | 54 | 45 | 88 | 30 |
| Lingen Lake (Comp) | 51 | 55 | 85 | 15 |
| Lower Twin Lake (Comp) | 50 | 10 | 86 | 31 |
| Lower Twin Lake (Bot) | 50 | 10 | 86 | 31 |
| Lucy Lake (Comp) | 50 | 18 | 87 | 13 |
| Lucy Lake (Bot) | 50 | 18 | 87 | 13 |
| String Bog (Comp) | 51 | 31 | 85 | 44 |
| Troutfly Lake (Comp) | 51 | 42 | 88 | 55 |
| Troutfly Lake (Bot) | 51 | 42 | 88 | 55 |
| Wabimeig Lake (Comp) | 51 | 28 | 85 | 35 |

The above lake stations have been monitored for the following parameters: Silica, Iron, Calcium, Magnesium, Sodium, Potassium, Sulphate, Chloride, Fluoride, Boron, Total Phosphorus, Nitrate, Total Kjeldahl, Tannins and Lignins, Total Alkalinity, Total Hardness, Total Dissolved Solids, Specific Conductance, Colour, Turbidity, Dissolved Oxygen, Temperature, Chlorophyll a, Phytoplankton, and Zooplankton.

ONTARIO MINISTRY OF THE ENVIRONMENT

STATION LISTING FOR THE WATER QUALITY MONITORING PROGRAM IN THE ARCTIC WATERSHED OF THE NORTHEASTERN REGION

| STATION NO. | STATION DESCRIPTION | U. T. M. | | PERIOD OF RECORD START DATE | COMMENTS | SAMPLE PARAMETER GROUP NO. |
|---|---|---|---|---|---|---|
| 002 190064 00102 | Mattagami River<br>Downstream from Timmins STP.<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0473350.0 | 5371250.0 4 | 24 Apr. 68 | Monthly | G 1 |
| 002 190064 00202 | Mattagami River<br>Highway 101 Bridge, Timmins<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0474100.0 | 5369000.0 4 | 24 Apr. 68 | Monthly | G 1 |
| 002 190064 00302 | Porcupine River<br>Highway 101 Whitney Township<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0487025.0 | 5371100.0 4 | 25 Apr. 68 | Monthly | G 2 & G 4 |
| 002 190064 00402 | Porcupine River<br>Highway 101 Bridge, Hoyle<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0496000.0 | 5377200.0 4 | 25 Apr. 68 | Monthly | G 2 & G 4 |
| 002 190064 00502 | Abitibi River<br>Downstream from Abitibi Paper Company<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0523700.0 | 5402350.0 4 | 25 Apr. 68 | Monthly | G 2 |
| 002 190064 00602 | Abitibi River<br>Upstream from Abitibi Paper Company<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0524325.0 | 5400950.0 4 | 25 Apr. 68 | Monthly | G 2 |
| 002 190064 00702 | Black River<br>Highway 101 Town of Matheson<br>Arctic Drainage<br>Moose River Basin | 17 0539500.0 | 5376150.0 4 | 29 Aug. 68 | Monthly | G 1 |

ONTARIO MINISTRY OF THE ENVIRONMENT

STATION LISTING FOR THE WATER QUALITY MONITORING PROGRAM IN THE ARCTIC WATERSHED OF THE NORTHEASTERN REGION

| STATION NO. | STATION DESCRIPTION | U. T. M. | | PERIOD OF RECORD START DATE | COMMENTS | SAMPLE PARAMETER GROUP NO. |
|---|---|---|---|---|---|---|
| 002 190064 00802 | Mattawishkwia River<br>Highway 11 Town of Hearst<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0310050.0 | 5506750.0 4 | 24 Apr. 68 | Monthly | G 2 |
| 002 190064 00902 | Kapuskasing River<br>Upstream from Spruce Falls Paper Company<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0396000.0 | 5473400.0 4 | 25 Apr. 68 | Monthly | G 2 |
| 002 190064 01002 | Kapuskasing River<br>Downstream from Spruce Paper Company<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0395150.0 | 5477950.0 4 | 25 Apr. 68 | Monthly | G 2 |
| 002 190064 01102 | Mattagami River<br>Upstream from Abitibi Paper Company Smooth Rock<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0453550.0 | 5458150.0 4 | 25 Apr. 68 | Monthly | G 2 |
| 002 190064 01202 | Mattagami River<br>Downstream from Abitibi Paper Smooth Rock<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0453550.00 | 5460050.0 4 | 25 Apr. 68 | Monthly | G 2 |
| 002 190064 01302 | Missinaibi River<br>Highway 11 Mattice<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0336150.0 | 5498000.0 4 | 23 Apr. 68 | Monthly | G 1 |

ONTARIO MINISTRY OF THE ENVIRONMENT

STATION LISTING FOR THE WATER QUALITY MONITORING PROGRAM IN THE ARCTIC WATERSHED OF THE NORTHEASTERN REGION

| STATION NO. | STATION DESCRIPTION | U. T. M. | | PERIOD OF RECORD START DATE | COMMENTS | SAMPLE PARAMETER GROUP NO. |
|---|---|---|---|---|---|---|
| 002 190064 01420 | Mattagami River<br>at Timmins Waterworks Plant<br>River Municipal Water Intake<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0473925.0 | 5369600.0 4 | 26 Nov. 72 | Monthly | G 2 |
| 002 190064 01602 | Groundhog River<br>Highway 11 Bridge in Fauquier<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0424250.0 | 5462600.0 4 | 25 Nov. 72 | Monthly | G 1 |
| 002 190064 01702 | Gough Creek<br>at Laurentian Ave., Kapuskasing<br>Arctic Drainage Ontario<br>Moose River Basing | 17 0396700.0 | 5473100.0 4 | 26 Nov. 72 | Monthly | G 1 |
| 002 190064 01802 | Five Mile Creek<br>at Mouth in Town of Mattice<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0336950.0 | 5437750.0 4 | 25 Nov. 72 | Monthly | G 1 |
| 002 190064 01902 | Ivanhoe River<br>Highway 101 and Railroad<br>Bridge Foloyet<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0322800.0 | 5345300.0 4 | 24 Feb. 73 | Sampled Twice 1973 | G 1 |
| 002 190064 02002 | Nebskwashi River<br>Inlet to Chapleau<br>Lake Chapleau<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0322800.0 | 5302400.0 4 | 24 Feb. 73 | Sampled Twice 1973 | G 1 |

ONTARIO MINISTRY OF THE ENVIRONMENT

STATION LISTING FOR THE WATER QUALITY MONITORING PROGRAM IN THE ARCTIC WATERSHED OF THE NORTHEASTERN REGION

| STATION NO. | STATION DESCRIPTION | U. T. M. | | PERIOD OF RECORD . START DATE | COMMENTS | SAMPLE PARAMETER GROUP NO. |
|---|---|---|---|---|---|---|
| 002 190064 02102 | Nebskwashi River<br>at Lisgar Street Chapleau<br>Arctic Drainage Ontario<br>Moose River Basin | 17 0320750.0 | 5301300.0 4 | 24 Feb. 73 | Sampled Twice 1973 | G 1 |

SAMPLE PARAMETERS FOR EACH GROUP NO. ARE AS FOLLOWS:

Group 1: B.O.D.$_5$, Conductivity, Turbidity, Free Ammonia, Total Kjeldahl, Nitrite, Nitrate, Total Phosphorus, Chlorides, Water Temperature, and Dissolved Oxygen.

Group 2: Same as Group 1 plus Total Solids, Suspended Solids, pH, and Phenol.

Group 4: Sulphates, Total Manganese, Arsenic, Copper, Nickel, Total Iron, Zinc, and Cyanide.

INDEX OF GAUGING STATIONS
IN THE ARCTIC WATERSHED IN THE NORTHEASTERN REGION
AS IS AVAILABLE IN THE ANNUAL ENVIRONMENT CANADA
SURFACE WATER DATA ONTARIO PUBLICATIONS

| | |
|---|---|
| Abitibi River at Abitibi Canyon | 04ME002 |
| Abitibi River at Iroquois Falls | 04MC001 |
| Abitibi River at Onakawana | 04ME003 |
| Abitibi River at Otter Rapids | 04ME004 |
| Abitibi River at Twin Falls | 04MC002 |
| Albany River Near Hat Island | 04HA001 |
| Attawapiskat River Below Muketei River | 04FC001 |
| Ekwan River Below North Washagami River | 04EA001 |
| Frederick House River at Frederick House Lake Dam | 04MD002 |
| Frederick House River at Nighthawk Lake | 04MD003 |
| Groundhog River at Fauquier | 04LD001 |
| Kabinakagami River at Highway No. 11 | 04JA002 |
| Kapuskasing River at Kapuskasing | 04LF001 |
| Kenogami River near Mammamattawa | 04JG001 |
| Little Current River at Percy Lake | 04JF001 |
| Mattagami River at Little Long Rapids | 04LG003 |
| Mattagami River at Smooth Rock Falls | 04LB001 |
| Mattagami River Near Timmins | 04LA002 |
| Missinaibi River at Mattice | 04LJ001 |
| Missinaibi River Below Waboose River | 04LM001 |
| Moose River at Moose River | 04LG002 |
| Nagagami River at Highway No. 11 | 04JC002 |
| Pagwachuan River at Highway No. 11 | 04JD005 |
| Shamattawa River at Outlet of Shamattawa Lake | 04DC002 |
| Shekak River at Highway No. 11 | 04JC003 |

In addition, the following watercourses in the Northwestern Region have been evaluated in terms of chemical, physical and biological parameters. (Not all parameters have been sampled in each area).

Agimak River
Albany River
Atikokan River
Atikwa Lake
Bass Lake
Black Bay
Boulevard Lake
Bruce-Pakwash Lakes
Caldwell Lake
Caramat Lake
Cloud Bay
Coldwater River
Confederation Lake
Corbett Creek
Crystal-Marion Lakes
Current River
Elbow Lake
English River
Helen Lake
Jackfish Bay
Jackfish Lake
Kaministikwia River
Kenogamisis Lake
Lake of the Woods
Lake St. Joseph
Lake Superior
Lofquist Lake
Longbow Lake
Long Lake
Lulu Lake
Manitouwadge Lakes
Marmion Lake
Matawin River
McIntyre River
McVicar Creek
Nana Creek
Neebing River
Nipigon Bay
Oliver Creek
Otoskwin River
Pearl River
Peewatai Lake
Pelican Lake
Peninsula Harbour
Pickle Lake
Pigeon Bay
Pine Bay
Rainy Lake
Rainy River
Red Lake
Shebandowan Lakes
Shoal Lake
Sturgeon Lake
Thunder Bay
Wabigoon River
Werner-Gordon Lakes
Winnipeg River

A listing of reports dealing with the water resources of the North is found on the succeeding two pages.

# WATER RESOURCES PUBLICATIONS

## WATER RESOURCES BULLETINS

### General Series

1-1 Northern Ontario Water Resources Study 1966 to 1968, 131 pp.

1-2 Northern Ontario Water Resources Study 1968 to 1969, 57 pp.

*1-3 Northern Ontario Water Resources Study 1970, 135 pp.

*1-4 Data for Northern Ontario Water Resources Studies 1971, 153 pp.

1-5 Data for Northern Ontario Water Resources Studies 1972-73, 234 pp.

## NORTHERN ONTARIO WATER RESOURCES STUDY REPORTS IN PREPARATION**

1. Water Resources Report 11 - Ground Water Resources in Northern Ontario, 100 pp. plus maps.

2. Water Resources Report 12 - Frequency Analysis and Chemistry of Stream Flows in Northern Ontario, 2 maps and descriptive marginal notes.

3. Water Resources Report 13 - Surface Water Quality of Northern Ontario, text and maps.

* Out of print

** Each report will have associated references. Those which are not included in the reports are on file with the Water Resources Branch.

# REPORTS and BULLETINS
# DEALING WITH WATERS in the ARCTIC WATERSHED
# of the NORTHEASTERN REGION,
# ONTARIO MINISTRY OF THE ENVIRONMENT


Conroy, N & Keller, W. Biological Evaluation of the Kapuskasing River, North of the Town of Kapuskasing, 1970. (Ministry of the Environment, 1971)

German, M.J. The Abitibi River Below Iroquois Falls, 1968 (The Ontario Water Resources Commission)

German, M.J. Biological Survey of the Abitibi River, 1967 (The Ontario Water Resources Commission, December, 1968)

Keller, W. & Conroy, N. A Report on the Water Quality of Selected Lakes in Kettle Lakes Provincial Park. (Water Resources Assessment, Northeastern Region, Ministry of the Environment, 1975)

Keller, W. & Conroy, N. The Water Quality of Selected Lakes in the Vicinity of Cochrane, Ontario, 1975. (Water Resources Assessment, M.O.E.)

Lammers, W. et al. Water Resources in the Onakawana Area and the Anticipated Impact of the Proposed Lignite and and Power Development. (Water Resources Division, M.O.E., October, 1972)

Ministry of the Environment. Water Quality Study of the Abitibi River Downstream from Iroquois Falls. (Environment Ontario, September, 1972)

Ministry of the Environment. Data for Northern Ontario Water Resources Studies, 1971. (Water Resources Bulletin 1-4)

Ministry of the Environment. Data for Northern Ontario Water Resources Studies 1972-1973. (Water Resources Bulletin 1-5, 1975)

Ontario Water Resources Commission. Data for Northern Ontario Water Resources Studies, 1970. (Water Resources Bulletin 1-3)

Ontario Water Resources Commission. Data for Northen Ontario Water Resources Studies. (Water Resources Bulletin 1-2, 1970)

Ontario Water Resources Commission. Data for Northern Ontario Water Resources Studies, 1966 to 1968. (Water Resources Bulletin 1-1, 1969)

(f) Sewage and Water Supply

Methods applied for sewage and water treatment are for the most part conventional, and similar to those in other areas of the province. Sewage is generally treated in primary plants, where receiving stream considerations dictate primary treatment as being adequate. Otherwise, secondary treatment, usually in the form of an extended aeration or contact stabilization pond, is provided. Little use is made of conventional lagoon systems due to unfavourable terrain. Tertiary treatment or nutrient removal has generally not been required, though two municipalities are required to have it because of potential receiving stream enrichment problems. Disinfection of treated effluent is practiced.

There are a number of considerations that are unique or present special problems in the north when it comes to environmental control and servicing of communities, and the most obvious is climate. Extremely cold weather adds substantially to cost of servicing (watermains must be buried at a minimum depth of seven to nine feet) and presents many operating problems. Problems caused by terrain are important also. Installation of services often requires very expensive rock excavation leading to unreasonably high servicing costs for water and sewer. Rocky and hilly terrain also contribute to the need for many sewage pumping stations, often requiring stand-by power, which also adds significantly to the cost of servicing.

Where services do exist, it is often difficult to get and retain qualified operating personnel. This is, no doubt, due in part to higher salaries available in primary resource based industries.

To complicate servicing problems, much of the North is without municipal structure or is unorganized. Many government programs, including MOE programs, for providing water and sewer services require agreements with municipalities. Hence, non-technical obstacles can hinder provision of essential services.

Other problems are experienced due to the existence of one-industry towns. Problems can exist even while the industry is viable but become extreme when the industry ceases operation, usually because of resource depletion. In these cases, even where services exist, they usually quickly fall into a state of disrepair, leading to environmental problems and threats to the public health.

Finally, in more sparsely populated areas, it is often more costly and difficult to install private sewage disposal and water supply facilities. Drilling for water in rock and importing fill for construction of septic tank and tile bed systems is obviously more difficult than providing the same facilities where there is an abundance of overburden and groundwater.

The following tables list the existing water and sewage treatment facilities located north of the 50th parallel.

Commencing on page 9 -25 is a synopsis of the projects currently being undertaken or planned for Northern Ontario.

## WATER SUPPLY SYSTEMS

| MUNICIPALITY | TREATMENT TYPE | CAPACITY MILLION GALLONS PER DAY | WATERCOURSE | OPERATED BY |
|---|---|---|---|---|
| Balmertown<br>Balmertown Townsite Plant Improvement District | Surface source<br>No treatment | 2.600 | Sandy Bay (Red Lake) | Municipality |
| Balmertown<br>Cochenour Townsite Improvement District | Surface source<br>No treatment<br>Chlorination | 1.730 | Bruce Channel (Red Lake) | Municipality |
| Ear Falls<br>Ear Falls Water Treatment Plant, Township | Surface source<br>No treatment<br>Chlorination | .250 | English River | Ministry |
| Moosonee<br>Old CFB | | | | Ministry |
| Moosonee Townsite | | | | Ministry |
| Nakina | Surface source<br>No treatment<br>Chlorination | .691 | Howard Creek | Municipality |
| Improvement District of Pickle Lake, Pickle Lake Water Works Improvement District | Ground source<br>No treatment<br>Chlorination | 0.030 | | Ministry |
| Sioux Lookout<br>Municipal Plant<br>Town | Surface source<br>No treatment<br>Chlorination<br>Fluoridation | 1.080 | Pelican Lake | Municipality |

## SEWAGE TREATMENT FACILITIES

| MUNICIPALITY | TREATMENT TYPE | CAPACITY MILLION GALLONS PER DAY | WATERCOURSE | OPERATED BY |
|---|---|---|---|---|
| Balmertown<br>Balmertown Townsite Plant Improvement District | Communal septic tanks | | Balmer Creek | Municipality |
| Balmertown<br>Cochenour Townsite Improvement District | Communal septic tanks | 0.030 | Red Lake | Municipality |
| Ear Falls<br>Ear Falls Water Pollution Control Plant | Contact stabilization | .250 | English River | Ministry |
| Moosonee at Old CFB | | | Moose River | Ministry |
| Moosonee Townsite | | | Moose River | Ministry |
| Nakina Municipal Plant Improvement District | Communal septic | | Howard Creek | Municipality |
| Improvement District of Pickle Lake, Pickle Lake Water Pollution Control Plant, Improvement Dist. | Secondary extended Aeration | .02 | Kawinogang R. | Ministry |
| Red Lake, Red Lake Water Pollution Control Plant Township | Contact stabilization | .250 | Howey Bay | Ministry |
| Sioux Lookout Municipal Plant Town | Conventional secondary | 0.5 | Pelican Lake | Municipality |

49-50°N - NORTHWEST REGION

BEARDMORE 49°-50'N/94°-30'W Sewer & Water

General Information/Population

Beardmore, located about 60 miles northeast of Thunder Bay, is a small town with a current population of about 850 with an economy based on the primary and secondary forest industry. Up until 1965 the town had a population of 1140 people which was supported by, in part, by a gold mining industry but when this closed down the town's population began to decline to its current level. Based on the possibility of renewed mineral activities through new finds the town and surrounding area are expected to grow in the next few years. For the 20 year design period of the two projects a projected population of between 1000-1200 people by 1990 is expected.

Water

Currently, water supplies for the village are derived from private, individual shallow wells that obtain their water from fine sand or silty sand aquifers running through the area. These systems suffer from two problems; inadequate supply and some contamination due to poorly installed septic tank systems. Of the three possible alternatives to alleviate this problem, deep well supply, lake water or river water, it was found that the river represented the most reliable supply source. In light of this, a package treatment plant with capabilities for treatment in reducing iron content, color and turbidity of the water, providing an 85 IGPM flow plus 60,000 IG storage was recommended. This system, along with an expanded watermain system, would allow for both domestic supply and fire protection as well as an allowance for future population growth.

Sewage

As previously stated, Beardmore is currently serviced by individual septic tank systems, some of which weren't installed or haven't been serviced properly. This presents a health hazard since untreated sewage that collects in open ditches provides breeding places for mosquitoes or other nuisance/hazard insects. In order to remedy this situation two systems, a package mechanical treatment plant and a system of waste stabilization ponds, were considered. Based on construction and future maintenance costs, an unlined waste stabilization pond on the east bank of the Blackwater River across from the town was decided upon.

A new system of sewers would be installed in the town, sewage pumped to the ponds and after 180 days retention the effluent would be released downstream of this town into the Blackwater River during spring and fall high flow periods. As with the water system, this type of set up can be expanded to meet further future population requirements.

| Cost | | |
|---|---|---|
| (1970 Est.) | Sewer<br>lagoon system | $399,000 installation |
| " | Water | |
| | Treatment Plant | $250,000 installation<br>$ 9,500/yr. operation |
| | Watermain | $234,000 installation<br>$ 3,500 maintenance |

Geraldton $49^{o}50'N/86^{o}$ 58' W.

General Information/Population

Geraldton, located about 130 miles northeast of Thunder Bay, has a present population of approximately 3100 people, having shown a recent increase after a 12 year decline. Though the economic base currently consists of a saw mill and pulp and paper plant, future expansion of the area's mining activities plus an expansion of the existing Kimberly-Clark plant have resulted in the town being deemed a designated regional center. During the 20 year design period of the sewage and water treatment plants, a projected population of 9000 is expected to be achieved.

Water

Water for Geraldton is currently supplied by a diesel pump from Resson Lake and distributed untreated to all lots in the town proper via a central watermain. Plans for updating this supply include the extension of a new intake system further into the lake, the construction of a pre-fabricated treatment plant with capabilities for removing most chemical impurities and a storage system in the form of an elevated tank to provide additional fire protection. Because of the possible limited supply capacity of Resson Lake, the possibility of connecting other area lakes to supply Resson Lake via pumping stations is being reviewed.

Sewage

As with the water treatment system, the sewage treatment system for Geraldton area will consist of a pre-fabricated treatment plant, pumping stations and new sewers Capable of handling a 250,000 IGPD flow and with a plant capacity for treating 400,000 IG, this new system will replace old septic tank systems, most of which are poorly installed and serviced. The treatment process itself will consist of screening and settling of solids, aerobic treatment of remaining solids and chlorination of effluent before being released. Unlike most provincial projects, this one, because of poor planning, building location, and labour problems, has resulted in both hardship to the town people because of construction and treatment inadequecies, as well as possible environmented degradation due to the release of raw sewage into the lake.

/5

| Cost (1976 est.) | Water |
|---|---|
| | Treatment |
| | Storage |
| | main upgrading $3,175,000 |
| | Sewage |
| | Plant main |
| | Pumping Station $2,557,000 |

Ignace 49° 20'N/91° 40' W.

General Information/Population

Ignace, located about 135 miles northwest of Thunder Bay, has a present population of about 750 people. However due to mineral discoveries (copper, lead, zinc) and the establishment of two extraction and refining companies, this area has been designated a growth area, under Ontario's general northern development plan. During the 20 year design period, a projected population of about 3300 people by 1992 is expected to be achieved.

Sewage

The work that is being currently undertaken with regards to sewage facilities involves the updating and expansion of both the existing treament plant and sewers. The existing primary treatment plant is being expanded to not only handle the anticipated growth but also to provide better treatment of the sewage through clarifiers, aerobic digestion of the sludge to reduce bacterial levels and chlorination of effluent before release. As well, existing sewers are being repaired or upgraded in anticipation of any future growth.

Water

In Ignace, water service is currently derived from either individual, private wells or from a small water system developed by the Canadian Pacific Railway for its facilities. In developing a new water supply system for Ignace both a treatment facility and complete water distribution system will have to be developed. The source of water supply for the village will be two deep wells located on the east side of town. These wells will have a supply capacity of 645,000 IGPD, but with controls to regulate the flow so storage facilites, such as elevated tanks or reservoirs won't have to be built. In addition, facilities will also be built into the control unit to chemically lower the high manganese and iron concentrations in the groundwater and provide chlorination to the treated water.

Costs

Sewers - Not available

Water - wells, treatment and distribution system (1972 est.) $445,000

Longlac 49° 45'N/86° 35' West

General Information/Population

Similar to the situation in Geraldton, Longlac is a small Town about 25 miles east of Geraldton with an economy based mainly on forest products and wood processing. The present population for the proposed service area (Geraldton plus Longlac Indian Reserve #77) is about 2,300. The projected 20 year design population for 1996 is estimated to be 3,900 people.

Water

Water for Longlac is currently derived from Long Lake where, like Geraldton it is pumped untreated by a central water system to serviced lots in the town. Water for the Indian Reserve is obtained either from the nearby Kimberly-Clark wood processing plant or local stream systems, most of which have water of questionable quality. Future supply for the service area will be provided by a pre-fabricated package treatment plant. With the supply capacity of 1,875,000 IGPD this system will not only supply water for domestic needs and fire protection, but will also serve the requirements of two wood processing plants. Additional fire protection for new growth areas in the future will be provided by a half million gallon elevated storage tank that will supplement the existing 100,000 IG storage unit. As well, the existing water distribution system is to be repaired or upgraded to prevent leaks that are now contributing to the high water consumption rate for the area.

Cost
(1976 est.)

| | |
|---|---|
| intake | |
| treatment | |
| elevated storage | |
| main repair upgrading | $2,594,000 |

Kenora Region - Kenora, Jaffray-Melick, Keewatin

General Information/ Population

Ontario's last urban centre before the Manitoba border, the three municipalities of the Kenora Region, Kenora, Norman and Keewatin, presently have a combined population of about 16,800 people. With an economy based primarily on wood and forest products, this area has been designated a growth centre under Ontario's plan for northern development. Though both Keewatin and Norman combined have a large enough population to support their own sewage and water treatment facilities, a limited regional budget and a high cost to service each household has resulted in the decision to link these areas to Kenora's treatment system. This will entail not only the expansion of existing water and sewage treatment systems in Kenora but the establishment or upgrading of pipelines plus support facilities (i.e. pumping stations) to Norman, Keewatin and other immediate areas. With this in mind, and considering this is a designated growth area, a projected design population of 21,600 has been set for 1996.

Water

Currently, water for the Kenora area is supplied from the Lake of the Woods to a treatment plant where it is chlorinated and fluoridated and supplied to Kenora only. Both Norman and Keewatin are supplied with water pumped directly from the Lake of the Woods to a small buried pipeline system that serves both communities. Because of the terrain and the fact that the pipeline hasn't been buried too deeply, there is a tendency for it to freeze in the winter causing inconvenience to its users. In developing a new system, this pipeline would have to be upgraded to minimize or alleviate this problem. The new treatment facility, to be built right beside the existing plant, would have a daily flow capacity of 2.94 MG and be built with a reservoir beneath it that would have a minimum capacity of 1 MG. As well, treatment processes would be included to reduce or remove any impurities in the water, as they are encountered. Also, a half millon gallon standpipe storage system is proposed for Keewatin. The present system services approx. 9,900 people and there are 500 without service in the Kenora area. Upon expansion of this treatment facility and pipe lines, the system is expected to serve 21,500 people in the tri-municipal area.

Sewage

Under the development plan to extend sewage systems to the areas west of Kenora, the main emphasis is the expansion of the present sewage treatment plant from a 2 million to a 4 million IGD capacity and upgrading of the treatment process. Current problems with the existing treatment system include problems with grit (ie. sand, dirt, etc.) coming in with the sewage and decreasing the effectiveness of the treatment process.

As well, none of the waste products that are aerobically digested sludges are dewatered. Thus liquid sludge is trucked out to a ground disposal site and dumped. In an area of high water tables and bedrock, the dumping of this sewage could result in possible contamination of the surrounding ground or surface water system. The new plant extension will alleviate this problem through longer aeration thus reducing possibly harmful bacteria levels. Also included is a process to solidify the waste sludge through a dewatering process. The remaining liquid effluent is chlorinated and dumped via an outfall pipe into the Winnipeg River where it is diluted and assimilated to an environmentally acceptable level. The present system serves approx. 8,900 with about 1250 in the Kenora region without services. With completion of this system the service will include about 21,500 people in an area encompassing the three municipalities of the Kenora Region.

Cost
(1976 est.)

| | |
|---|---|
| Water | expanded treatment plant<br>link to Norman and Keewatin<br>pipeline upgrading and support<br>facilities<br><br>$1,780,000 |
| Sewage | expanded treatment plant<br>link to Norman & Keewatin<br>pipeline upgrading and support<br>facilities<br><br>$2,630,000 |

**********

50-51° N. Northwest Region

Ear Falls 50° 40' N./93° 20' W.

General Information/Population

Ear Falls, a small town with a current population of about 1,650 people, is located approximately 45 miles northeast of Kenora. Because of the close proximity of both Ear Falls and Red Lake to the proposed Reed Paper timber development area, these two centres, under Provincial assistance are being developed as possible future growth areas. In Ear Falls this involves the development of a new water treatment system and the expansion of the existing sewage treatment system to handle a projected 20 year design population of 5,000 by 1996.

Sewage

Ear Falls is currently served by a sewage collection system that carries sewage to an existing settling tank where the heaviest suspended solids settle out and the remaining liquid effluent is discharged in the English River. There are also some households that use septic tank/tile bed systems for disposal of wastes. The new system of sewage disposal for the plant is to consist of an expanded package treatment plant that will screen and separate the solids,

biologically reduce the remaining solids through aerobic processes in an aeration tank, collect the solids in a sludge holding tank for periodic ground disposal and finally chlorinate the liquid effluent before release via outfall pipe into the English River. The rated treatment capacity of the plant is to be 635,000 IGPD. In addition to the expansion of the plant, new pipeline systems will be put in the old section of town and possibly in the Ontario Hydro properties as well.

Water

Water for Ear Falls is now obtained by pumping from the English River where after chlorination it is distributed to the serviced lots in town. Under the proposed systems, water would still be obtained from the English River and would then undergo dual filtering, chemical treatment to remove impurities, if necessary, and finally chlorination before distribution, This sytem with a daily supply capacity of 1 million IG, would also have the clearwater storage reservoir with a 250,000 IG capacity to provide additional fire protection.

Cost

| | | |
|---|---|---|
| (1975 est.) | Water | |
| | Plant | |
| | Reservoir | |
| | Sludge Disposal | $1,600,000 |
| (1974 est.) | Sewage | |
| | Plant expansion | |
| | Sludge dewatering | |
| | Pipeline | $1,135,000 |

Nakina 50° 40' N/86° 45' West

General Information/Population

Nakina, located about 220 miles northeast of Thunder Bay and 40 miles N. of Geraldton was once an active railway center during the steam era. Though the CNR still maintains the division center there as a service stop for trans-continential passenger trains, the population has declined to the present population of 650 people. With the recent expansion of Kimberly-Clark Woodland operations into the area and possible mineral development by Anaconda Mines, the population is expected to increase dramatically. As a result of this expected increase, water and sewer services will be updated to handle a projected design population of 3000 by 1996.

Water

Water for Nakina residences is supplied from either of two sources. One is a small pumping and treatment facility developed by the CNR for its own use and to which some households have been hooked up. Those not using the railway facilities obtain their water from individual, shallow water wells. Because of the age of the CNR system and the fact that the water obtained from it is of poor quality, both chemically and biologically, an entire new treatment system is to be developed. This is to consist primarily of a deep water well located at a gravel aquifer on the north side of town that will supply water of both good quality and quantity. In addition, chemical treatment to minimize or remove the existing iron concentrations in the water well will be initiated as well as the building of a 50,000 IG storage reservoir. Work will also be undertaken to hook up all existing and new areas to the system and to upgrade any existing distribution systems if necessary.

Sewer

In Nakina, sewage disposal is currently achieved through the use of septic tanks and tile leaching bed systems. Because of the clay soils they tend to be fairly inefficient and present a health hazard to the community through the collection of untreated effluent in ditches and stagnant water bodies. In order to alleviate this problem and allow for expansion of housing developments for new employees for the new area industries, a two stage sewage disposal plant was proposed. The first stage involved the development of a collection system to transport sewage to a set of temporary settling lagoons and leaching bed systems. This is to be followed by a package mechanical treatment plant that will biologically reduce the solids through aerobic digestion, employ phosphorous removal which will use a large lagoon to allow the phophorous to exfiltrate into the surrounding land and finally chlorinate the liquid effluent before release into Howard Creek. With a treatment capacity of 375,000 IGPD, this final stage should be completed by the end of 1978.

/11



Cost
(1975 est.)

| | | |
|---|---|---|
| Water | Well & Housing | $1,50,000 |
| | Distribution | |
| Sewage | Lagoon & tile beds | $65,000 |
| | Treatment Plant | |
| | Collection System | $2,100,000 |
| | Total | $2,165,000 |

**********

Sioux Lookout 50° 10' N./91° 55' W.

General Information/Popultion

With an economy base dependent mainly upon the activities of the CNR in the area, Sioux Lookout, as a regional rail centre has a current population of 2,750 people. Because it is dependent on the railway the population is expected to remain static during the 20 year design period with a projected population of about 3,000 by 1992.

Sewage

The plans for the sewage system in Sioux Lookout calls for an expansion of the existing system. This involves expansion of the plant from the present biological filter, dual clarificatio system to that of an activated sludge process. This would biologically reduce the bacteria levels in the waste through an aeration process after first removing as much of the solids as possible. The treated effluent is then passed through a secondary clarifier where the sludge is transported to a holding tank for removal to ground disposal sites. Then the liquid effluent is chlorinated and released into Pelican Lake via an outfall pipe. The new plant with a capacity of 375,000 IGPD will be able to handle any unexpected increase in population should it occur.

Cost
(1976 est.)

| | |
|---|---|
| upgrading/expansion of plant | |
| outfall sewer | |
| pumps | $448,000 |

51-52° N. Northwest Region

Balmertown 51°- 05' N./93° -45' W.

General Information/Population

Balmertown, located about 120 miles northwest of Dryden, is essentially a community town that has been developed by and has its economic base in the Campbell Red Lake Gold Mine. Unlike most company sponsored towns, Balmertown is well planned and therefore has the potential for expansion if timber developments should occur in the future. With a present population of 1200 the type of sewage treatment system for the area still needs to be finalized. The final design will be sized for a projected design population of 1800. However, should the Reed proposal go through the facilities could be expanded to ultimately accommodate 4000-5000 persons if necessary.

Sewers

Balmertown sewage disposal needs are currently serviced by two communal septic tank systems on the east side of town. As it stands now both of these systems are overextended resulting in the incomplete treatment of sewage. As well, the liquid effluent from these tanks drains into an open ditch and the solid waste is periodically removed and disposed of on the ground outside of the tanks, both practices presenting a potential health hazard. To alleviate this problem a two stage treatment program has been initiated. The first stage is a temporary measure that involves the expansion of the septic tank plus the addition of chlorination facilities to handle the sewage while a permanent plant is being built. The second stage, the treatment plant itself, will consist of a package treatment plant that employs a biological contact process. Waste will be aerobically treated to reduce bacteria levels and the solids transported to a landfill site while the liquid effluent will be chlorinated before release into the existing drainage ditch and eventually Balmer Creek. This type of system will handle probable design population of 1800 and has the potential to be expanded and upgraded to serve the ultimate population of 4000 if required.

Cost
(1975 est.)

Plant
Sludge Disposal
Collection, Expansion & Upgrading
$1,710,000

Cochenour & McKenzie Island 51°10'N./93°55'W.

General Information/Population

Located in the general area of Red Lake and Balmertown, the separate communities of Cochenour and McKenzie Island are being considered together for improved water and sewer services not only because of their close promimity, but because of the similarity of the problems. Due to the fact that the costs of expanding services on McKenzie Island are beyond the financial means of the residents of the Island, any expansion will be posponed till the future. Cochenour, with a present population of about 750 people, will have its existing water and sewer services expanded to allow for a certain amount of growth anticipated over the next several years. We can't base our expansion plans merely on one large industry locating in the area. They have existing problems which will be dealt with in the upgrading a certain % of growth.

Water

Water for both Cochenour and McKenzie Island is obtained from the Bruce Channel. In the case of McKenzie Island water is supplied by two companies. One pipes the water directly to his customers, resulting in a boil water order being in effect, while the other company chlorinates the water before distribution. Plans for Cochenour only, at present, call for the upgrading of both water intake and treatment systems, as well as repair or replacement of the present water distribution system.

Sewer

As with most northern communities, both Cochenour and McKenzie Island are serviced by septic tank systems. In the case of Cochenour, treatment is handled by either individual septic tank and tile leaching bed systems or through the use of one of five communal septic tanks. The former systems tend to be ineffective due to the shallow clay soils of the area, while the latter presents a health hazard due to the ponding of the liquid effluent on the surface or allowing it to drain into local water bodies. On McKenzie Island the situation is similar, though in this case only individual not communal septic tanks are used. While some form of expanded treatment system will probably be built in Cochenour in the near future, no real plans have as yet been developed.

Costs - Cochenour only
(1976 est.)

| | |
|---|---|
| Water | Upgrade pumping station<br>relocated intake pipe<br>repair/replace distribution system<br>$1,000,000 |
| Sewer | Waste treatment plant<br>Collector System<br>$1,000,000 |

Pickle Lake $51^{o}$ - 20' N./$90^{o}$ - 10' W.

General Information/Population

Unlike most other projects that have been previously discussed, the sewage and water treatment process at Pickle Lake are a joint development effort between the provincial government and Union Miniere Minerail Exploration & Mines Ltd. (Umex). It is located about 350 miles northwest of Thunder Bay, the project involves the development of new sewage and water treatment facilities plus collection and distribution systems for the new townsite being developed around the existing town of Pickle Lake. The three new townsites and one trailor park will house personnel to develop UMEX's area mining holdings of lead, copper, and nickel. Before the present surge of mineral activity, Pickle Lake was the major gold centre that produced 75 million dollars out of three mines before the last one closed down in 1967. With a present population of about 300 people and a 20 yr. design population 3500 people expected by 1998, these new developments will bring much needed support facilities to the existing town in providing an economic stimulus for the whole area.

Water

Water in the existing section of Pickle Lake and the area for the proposed trailer park is derived from shallow groundwater well systems. In the future, water for all the new areas of the town and for storage purposes will be obtained from a deep well system located near an esker on the east side of town should tests prove this a reliable source in quality and quantity. This type of supply would need little if any, treatment and would only require storage to provide fire protection. if this system does not prove feasible water will be obtained from Pickle Lake which will entail the development of some type of treatment system.

Sewage

Currently in Pickle Lake sewage is disposed of and treated by either cesspools or septic tank systems. Because of the sandy soils in the area both of these systems tend to operate fairly effectively. Development plans for the new townsites call for the building of a new collection system and a central treatment plant. Depending on how quickly construction of the treatment plant can occur, there is also the option of building a holding tank/oxidation treatment pond system, to service residences until the other mechanical treatment plant is completed. The treatment facility itself will be a package prefabricated extended aeration treatment process. This process, removes solids upon entering the plant, aerates the remaining liquid-solid mixture to reduce bacteria levels, filters the mixture and removes the sludge to a holding tank for periodic ground disposal and finally chlorinates liquid effluent before release to a water system. The process has the dual benefit of not only effectively treating the sewage but because there is no phosphorous removal it may also

encourage algae and therefore fish growth along streams where effluent is released. The cost of developing the treatment plant plus main trunk sewers to it will be carried by the province, but the rest of the collection system and servicing to all new lots will be the responsibility of the mining corporation.

Cost

| | | | |
|---|---|---|---|
| (1977 est.) | Water | Wells<br>Treatment<br>Storage | $435,000 |
| | Sewage | Treatment Plant<br>Collection Main<br>Outfall | $2,735,000 |

**********

Red Lake 51° - 05' N./93° - 50' W.

General Information/Population

Due to possible future growth as a result of Reed's timber proposal, and current OHC planning for new subdivision growth, existing water and sewer treatment systems in Red Lake are to be expanded. With a present population of 2300, a 20 yr. design population of 3500 by 1995 is projected.

Water

Upgrading of the existing water system calls for expansion of distribution service to about 470 people and the improvement of existing systems to another 465 people. As well the supply capabilities of the system will be enhanced by the addition of 2 extra pumps, bringing the total to 5, plus the addition of extra chlorination facilities. In order to supplement the domestic supply as well as providing extra fire protection to new areas of the community, a 350,000 IG elevated tank is to be built.

Sewers

As with the water system, the program for the sewer system will be the upgrading of the existing systems and the installation of new collector systems to serve an additional 930 people. As well, the existing package treatment plant will be upgraded to the extended aeration process with sludge holding facilities and chlorination of the effluent. Both sewer and water main extensions will utilize the same trench due to the high cost of developing a piped system in a predominantly bedrock environment.

Cost
(1975 est.)

| | | | |
|---|---|---|---|
| | Water | Upgrading & extension | $370,000 |
| | Sewage | Plant Expansion | $727,000 |
| | | Upgrade & expansion | $1,954,000 |

49-50° Northeast Region

Fauquier 49° - 25' N. /82° 00' W.

General Information / Population

Located about 20 miles east of Kapuskasing, Fauquier is a small town with an economy based on a pulp and paper industries in Smooth Rock Falls and Kapuskasing. As with a lot of towns in this region, Fauquier is divided by the main CNR line and highway #11, creating a problem of servicing the two areas. With a current population of 825 people, the plans for expansion of the existing water and sewer service project a design population of about 1,175 by 1987.

Sewer

Sewage disposal and treatment in the town is presently achieved through the use of individual septic tanks. Because of the thick clay or clay-silt subsoils in the area, most systems don't operate as efficiently as they should. This presents a potential health hazard as a result of raw untreated effluent collecting in open ditches. The new treatment system for the community will consist of a 10 acre waste stabilization pond with a 180 day retention capacity. After the end of the retention period, the effluent will be discharged into the Groundhog River during periods of high flow. As well, a collector system will be established to service all lots and transport the waste to the lagoon site.

Water

Water for the town is currently supplied by individual shallow well systems. Originally it was proposed that the new water supply for the town could be obtained using the deep well system. As no treatment would be required using this process, only a storage system would have to be built. It was found however that the supply capabilities of this system were unreliable. Instead, water for the town is to now be obtained from the Groundhog River. Utilizing this system will entail the establishment of a package treatment plant to minimize or remove any impurities as well as the provision of chlorination of the treated water. To provide additional supply for fire protection a 100,000 IG reservoir is to be located beneath the plant. A distribution system is also planned.

| Cost (1977 est.) | | |
|---|---|---|
| | Sewer | |
| | Lagoon<br>Pumping Station<br>Collector System | $431,000 |
| | Water | |
| | Treatment Plant<br>Reservoir<br>Distribution | $645,000 |

/17

Hearst 49° - 45'N. /83° - 45' W.

General Information/Population

Hearst, like most northern communities in this area, has an economy based mainly on the timber, wood processing or pulp and paper industries. In upgrading the existing water and sewage treatment plants, an expanded service area will be served as the result of incorporation of the towns of St. Pie X and Louisburg with Hearst. The combined population of these three communites is about 5,045 people with a 20 year design population of 7,975 expected by 1995.

Sewerage

With the incorporation of these two towns into the Town of Hearst, an expansion of sewer systems was required to service these two new areas. Expansion would entail the expansion of the existing waste stabilization pond facilities from 2 to 4 treatment cells covering an area of about 65 acres. As well, extensions of the existing sewer collection systems to these new service areas will be undertaken.

Water

As with the sewer system, there will be an expansion and upgrading of the existing water treatment plant. The expansion will be necessary to supply water to the newly incorporated areas while upgrading will result in more complete treatment in removing impurities from the water being obtained from the Mattawishkiwia River. Along with the building of the distribution system to the new service areas, a proposed 435,000 IG elevated storage tank will result in extra fire protection for all communities.

| Cost (1975 est.) | Water | Sewer |
|---|---|---|
| | Plant acquisition<br>expansion<br>elevated tank<br>distribution | lagoon expansion<br>collection expansion |
| | $ 3,758,000 | $3,313,000 |

/18

Kapuskasing 49° - 30' N./ 82° - 25' W.

General Information/Population

Kapuskasing, with a wood processing and pulp-paper industry based economy is one of the larger urban areas in the northeast region. Because of its size and the fact that it should be able to develop a more diverse economy in the future, Kapuskasing has been designated as a potential growth area. With a present population of 8,030 a 20 yr. design population of 8,830 is expected by 1996.

Sewer

Presently Kapuskasing is serviced by 2 communal septic tank systems. Due to the high inflow of sewage into the tanks, incomplete treatment of the sewage is occurring resulting in raw sewage being dumped into the river. The planned system calls for the establishment of an activated sludge treatment process. This treatment method to treat domestic waste only, will screen and remove solids, aerobically digest the remaining solid effluent to reduce bacteria levels, transfer sludge to holding tanks and finally chlorinate the remaining effluent. Because the sludge has been reduced to a biologically safe level, it is to be used as fertilizer supplement on farms in the surrounding district. With a treatment capacity of 2.3 MIGD there will also be an extension of collector systems to new development areas, thereby making full use of the system.

| Cost (1976 est.) | | |
|---|---|---|
| | Treatment plant<br>Collector System<br>Pumping Stations | $3,871,000 |

/19

Mattice 49° - 30' N/ 83° - 15' W.

General Information/Population

Mattice is a small community located about 10 miles east of Hearst on Highway #11. It has an economy based mainly on the timber processing but with the closing of all plants, employment is mainly derived from areas outside of the community now. Because of the closing of all of the plants, there has been a moderate population decrease over the past few years to its present level of 760 people. Over the 20 year design period the population is expected to increase, possibly through renewed timber activities, to a projected level of 1100 by 1995.

Sewers

Sewage disposal in Mattice at present is achieved either through communal or individual septic tank systems. Because of their general inefficiency in silty clay soils more adequate treatment systems have been proposed. The system to be used for future sewage disposal, because of the uncertainty of population growth and the ready availability of clay, is a waste stabilization pond. This system will retain sewage for 180 days at which time the liquid effluent will then be released into the Missinaibi River during high flow periods. Because the town is divided by the river, collection and treatment services will only be provided to the larger area on the east bank of the river.

Water

Currently, water services in Mattice are supplied from one of six different privately owned communal treatment/distribution systems or from shallow drilled well systems. Both of these types of systems are inefficient, the communal water system due to poor maintenance of equipment and distribution system and the wells because of possible contamination through faulty septic tanks. The planned system of water supply calls for the building of a package treatment plant that would use the Missinaibi River as a supply source. Water would be chemically treated to reduce or eliminate iron concentrates, colour and turbidity. In addition to building a new distribution system for the town, a 100,000 gallon storage reservoir will be also built to provide additional fire protection.

Cost

| (1976 est.) | Sewage | Water |
|---|---|---|
| | Lagoon<br>Mains<br>Pumping Station | N/A |
| | $310,000 | |

/20

Smooth Rock Falls $49^{o}$ -15' N/$81^{o}$ - 40' W.

General Information/Population

The current population of the town is approximately 2400 with a 20 yr. design population of 3000.

Sewer

At present sewage in Smooth Rock Falls is transported by a central collector system for direct release into the Mattagami River. The proposed treatment process, the extended aeration method, (discussed previously) will have a treatment capacity of 360,000 IGPD with release of treated effluent into the Mattagami River. In addition there will be an expansion of collector systems to serve the incorporated community of Kendall which will hook up to the existing collector system.

Cost

| | |
|---|---|
| Plant<br>Collector Extensions | $1,300,000 |

**********

Val Rita $49^{o}$ - 25' N/$82^{o}$ - 35' W.

General Information/Population

Located about 7 miles west of Kapuskasing, Val Rita, like most northern communities has a primary economic base in the forest or timber products industry. Because of its close proximity to Kapuskasing, Val Rita is essentially a satellite community to the larger urban centre. With this in mind, the population is expected to grow from its present level of 325 people to about 950 people by 1996, the end of the 20 yr. design period.

Sewers

As with other small northern villages, Val Rita disposes of sewage by the use of individual septic tanks. Because of the clay soils in the area most septic tanks don't operate at an optimum treatment efficiency, resulting in untreated liquid effluent seeping out and collecting in open ditches. To allivate this problem a treatment process using a waste stabilization pond is proposed. The sewage would be pumped by a central collector system to a twin cell lagoon where it would be retained for 180 days before discharge.

Cost

| | |
|---|---|
| Collector Systems<br>Lagoons | $645,000 |

# A P P E N D I X  10

## Additional Guidelines

Appendix 10 - Additional Guidelines

Mining - Effluent Guidelines and Receiving Water Quality Objectives for the Mining Industry In Ontario - 1973

- Environmental Design Considerations for Ontario Mining Operations - 1976

- Tailings Disposal - Recommendations for Site Selection - 1976

- Mine Waste Control in Ontario - 1977

- The Problem of Acid Mine Drainage in The Province of Ontario - 1977

- The Use, Characteristics and Toxicity of Mine - Mill Reagents in the Province of Ontario - 1977

- Decant System Design Considerations for Ontario Mining Operations

APPENDIX 11

THE CANADA-ONTARIO ACCORD

# CANADA - ONTARIO ACCORD
# FOR THE PROTECTION
# AND ENHANCEMENT
# OF ENVIRONMENTAL QUALITY

# CANADA - ONTARIO ACCORD FOR THE PROTECTION AND ENHANCEMENT OF ENVIRONMENTAL QUALITY

THIS ACCORD is entered into on behalf of the Government of Canada (hereinafter called "Canada") by the Honourable Jeanne Sauvé, Minister of the Environment, and on behalf of the Government of Ontario (hereinafter called the "Province") by the Honourable George Kerr, Minister of the Environment.

WHEREAS management of the quality of the natural environment involves maintaining or enhancing the ability of the biosphere to produce a wide variety of resources and conditions useful to man; and

WHEREAS an understanding of the biophysical relationships of ecosystems is fundamental to successful attainment of environmental quality objectives; and

WHEREAS institutional systems established to govern man's activities including his impacts on the natural environment, are superimposed upon natural systems; and

WHEREAS both Canada and the provinces have jurisdictions and responsibilities in the field of environmental quality, including pollution prevention, control and abatement;

THEREFORE, the Governments of Canada and Ontario,

RECOGNIZING that programs aimed at achieving environmental objectives should be planned and undertaken in such a way as to ensure comprehensiveness and eliminate duplication;

AGREE to adhere to the principles and practices stated below in the development and maintenance of complementary programs with each government acting within its jurisdiction;

AGREE to develop new coordinating mechanisms and new complementary programs so that they are in harmony with

existing cooperative or complementary arrangements in related fields flowing either from legislation or administrative practice; and

AGREE to the following principles and practices relating to the protection and enhancement of environmental quality;

## General

1. This Accord applies to federal-provincial relationships involved in the protection and enhancement of environmental quality. This would generally encompass environmental assessment, design, protection, enhancement and related research.

2. The objectives of the Accord are:

   (a) to provide a more effective overall effort in the protection and enhancement of environmental quality through better coordination of the activities of Canada and the Province; and

   b) to provide a broad framework within which specific agreements can be designed to cope with particular problems.

3. This Accord will be in force for a five-year period with provision for revision and/or renewal by mutual agreement if desired by either party at any time.

4. Canada and the Province agree to develop subsidiary agreements dealing with particular environmental concerns of mutual interest.

## Interpretation

5. In this Accord,

   "data" means data which describe the state or condition of the environment at the time collected and against which any change in that state or condition can be measured.

   "federal facilities" means works or installations, owned or managed, operated or controlled by Federal Ministries, Departments and Agencies.

   "guidelines" means recommended good practices to assist in achieving uniformity.

   "objectives" means levels of environmental quality to be attained in either the short-term or long-term.

"regulations" means any rule, order, ordinance, direction, by-law, resolution or other instrument,

(a) issued, made or established in the exercise of a legislative power conferred by or under any statute, or

(b) for the contravention of which a penalty, fine, imprisonment or any other measure is prescribed by or under any statute.

"scientific criteria" means the objective quantitative assessment of risks to the receptor due to a particular pollutant in the environment together with the fundamental principles and scientific knowledge on which the assessment is based.

"standards" means legally prescribed limits of pollution.

## Ambient Environmental Quality Criteria and Objectives

6. Canada agrees, after consultation with the Province and all other provinces, to determine and promulgate scientific criteria for air and water quality based upon the best available scientific information.

7. Canada agrees, after consultation with the Province and all other provinces, to establish broad national ambient quality objectives for air and water based upon nationally agreed scientific criteria.

8. Canada and the Province agree to identify specific geographic areas of joint interest and to establish specific ambient quality objectives or requirements for such areas based upon agreed scientific criteria. Existing agreements would not be affected by such undertakings.

## National Baseline Pollution Control Requirements and Guidelines for Industry

9. Canada, after consultation with the Province and all other provinces, agrees to develop national baseline effluent and emission requirements and guidelines for specific industrial groups and specific pollutants. Specific groups or classifications of industries will be agreed upon from time to time for the purpose of establishing priorities.

## Environmental Effects

10. Canada and the Province agree to have consult freely on possible environmental effects of proposed major developments or redevelopment projects. Canada and the Province undertake to provide each other with data and other general information necessary for an environmental assessment and review.

## Pollution Control Implementation

11. Canada and the Province undertake to carry out pollution control programs for facilities under their respective control to meet agreed objectives and federal and provincial requirements.

12. The Province agrees to establish and enforce requirements at least as stringent as the agreed national baseline requirements. Such requirements would be applied at start-up for all new installations or for installations undergoing major plant modifications. In all other cases the national baseline requirements would be applied as a minimum as rapidly as possible to meet agreed objectives and time schedules.

13. Canada and the Province agree to appoint officers designated by either government to facilitate inspection for compliance with national effluent and emission requirements. Appropriate arrangements for either federal or provincial inspection of federal facilities would be determined by specific agreements.

14. Canada agrees to take enforcement action:

    (a) at federal facilities unless otherwise agreed to under Clause 13 above;

    (b) at the request of the Province; or

    (c) where the Province cannot, or for some reason fails to fulfill its obligations under this Accord, with respect to matters of federal jurisdiction administered by the Province.

15. Canada undertakes to accelerate promulgation of regulations for the safe and sanitary control of wastes from commercial vessels. Canada and the Province agree to cooperate in the control of wastes from commercial vessels at harbour facilities.

## Monitoring and Surveillance

16. Canada and the Province agree to cooperate in monitoring the quality of air and water in areas of joint interest, to carry out surveys and to interpret trends in ambient quality in relation to agreed objectives.

17. The Province will undertake surveillance of the characteristics of effluents and emissions, including their influence on ambient quality and their compliance with agreed effluent and emission standards and ambient quality objectives.

18. Canada and the Province, in concert with other provinces, agree to harmonize monitoring and surveillance methods and analysis systems to ensure comparable results.

19. Canada and the Province, in concert with other provinces, agree to exchange all data freely and to develop procedures relating to the publication of data having due regard for confidentiality or security as may be required.

## Special Agreements for Accelerated Action

20. Canada and the Province, in concert with other provinces as appropriate, agree to identify environmental problems in areas of mutual concern and to enter into implementation agreements to accelerate preventative actions and the clean-up of specific areas.

21. Canada agrees to assist in the implementation of these accelerated programs by assigning appropriate priorities in available financial assistance programs.

## Contingency Plans

22. Canada and the Province, in concert with other provinces, municipal governments, agencies and industries as appropriate, agree to develop and to implement integrated contingency plans for environmental emergencies.

## Research, Technical Advice and Training

23. Canada and the Province agree to cooperate jointly or in association with other governments, individuals, universities or industry on research and pollution control technology development programs in support of this Accord.

24. Canada and the Province agree to seek and make available to each other the advice of their technical experts in support of this Accord.

25. Canada agrees, where possible and appropriate, to provide supporting resources for technical training programs which the Province may request and undertake to develop. The type of training programs required would be the subject of discussions between the two governments.

## Cost-Sharing

26. Where by specific agreement, Canada and the Province undertake joint programs of data gathering, assessment, research and design, cost-sharing will generally be negotiated on a 50/50 basis except where special circumstances indicate other proportions. Canada and the Province agree to adopt procedures for the audit and liquidation of claims for reimbursement with respect to these shared programs.

## Other

27. A Canada - Ontario Committee will oversee the implementation of the Accord, consult on environmental matters and recommend on needs for specific agreements under the Accord.

IN WITNESS WHEREOF the Honourable Jeanne Sauvé, Minister of the Environment, has hereunto set her hand on behalf of Canada, and the Honourable George Kerr, Minister of the Environment, has hereunto set his hand on behalf of the Province of Ontario, this 20th day of October 1975.

Signed on behalf of Canada, by the Honourable Jeanne Sauvé, Minister of the Environment

IN THE PRESENCE OF

Signed on behalf of the Province of Ontario by the Honourable George Kerr, Minister of the Environment

IN THE PRESENCE OF